STEREO CASSETTE DECK WITH DOLBY SYSTEM

MODEL AD-6500 EE, UK

AIWA®

[SERVICE MANUAL]

ISO

Set using ISO screws

DATE OF ISSUE 25/12/1975

SPECIFICATIONS

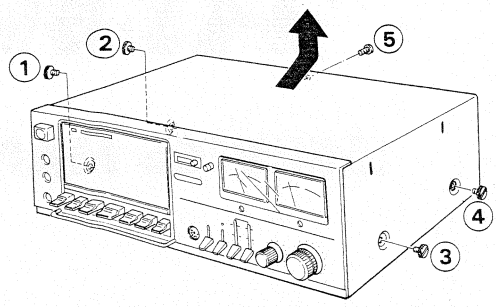
Type	Stereo cassette tape deck w/built-in Dolby NR System
Track Format	4 tracks 2 channels
Circuitry	1 IC, 36 transistors, 27 diodes, 2 FET, 4 LED
Power Supply	"EE" model AC 110~120 V/220~240 V, switchable 50 Hz/60 Hz "UK" model AC 120 V/240 V, switchable 50 Hz/60 Hz
Power Consumption	13 W
Frequency Response	according to DIN 45 500 Blatt 8 LH tape: 30~12,500 Hz CrO_2 tape: 30~16,000 Hz Fe-Cr tape: 30~16,000 Hz
SN Ratio	according to DIN 58 dB (CrO_2/Fe-Cr tape, DOLBY NR on)
Wow & Flutter	according to DIN 45 500 Blatt 8 0.13%
Tape Speed	4.8 cm/sec. (1-7/8 ips)
Rewind Time	90 sec. (C-60)
Fast Forward Time	95 sec. (C-60)
Recording System	AC bias (frequency 100 kHz)
Erase System	AC erase
Motor	DC servo motor
Head	Ferrite guard head (FGH)
Inputs	MIC max. sensitivity 0.25 mV (200 ohms ~ 10 k ohms usable) LINE IN max. sensitivity 50 mV (more than 100 k ohms) DIN max. sensitivity 0.1 mV/k ohms (5 k ohms)
Outputs	LINE OUT standard level 0.775 V (0 VU) Optimum load impedance more than 50 k ohms DIN standard level 0.775 V (0 VU) Headphones 8 ohms
Dimensions	450(W)×155(H)×300(D)mm (17-11/16" x 6-1/8" x 11-13/16")
Weight	8.5 kg (18.72 lbs)
Accessories	DIN cord 1 Head cleaning stick 1 Tape cassette 1

- Specifications and external appearance are subject to change without notice due to product improvement.
- Dolby Noise Reduction System is licensed from Dolby Laboratories Incorporated.
- The name "Dolby" and the "Double D" symbol are trademarks of Dolby Laboratories Incorporated.

DISASSEMBLY INSTRUCTIONS

1. To Remove Cabinet

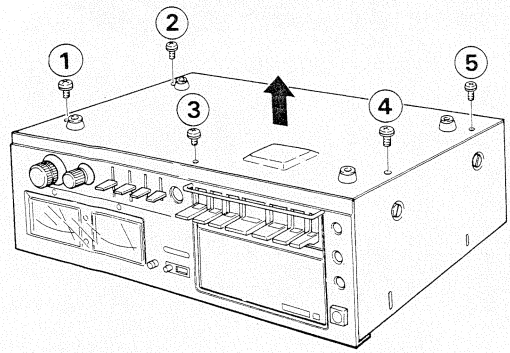
1) Remove four screws, (1) through (5).
(Refer to Fig. 1)



< Fig. 1 >

2. To Remove Bottom Cover

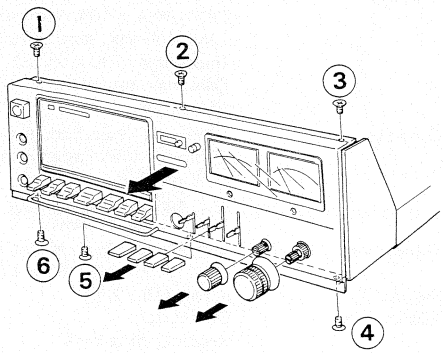
1) Remove five screws, (1) through (5).
(Refer to Fig. 2)



< Fig. 2 >

3. To Remove Front Panel

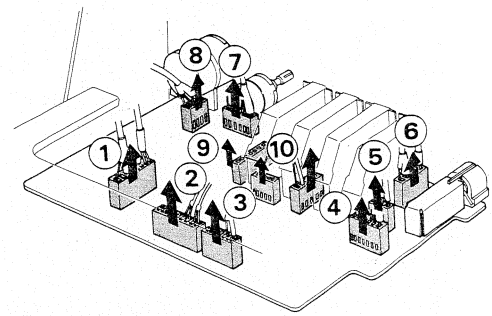
1) Pull off the knobs.
2) Remove six screws, (1) through (6).
(Refer to Fig. 3)



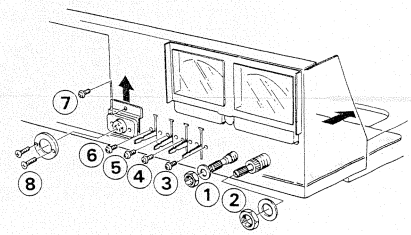
<Fig. 3>

4. To Remove Switch Circuit Board

1) Remove eight connectors, (1) through (10).
(Refer to Fig. 4)
2) Remove two nuts; (1) and (2).
3) Remove six screws, (3) through (8).
(Refer to Fig. 5)



< Fig. 4 >



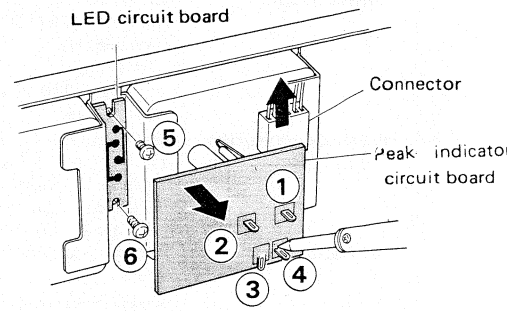
< Fig. 5 >

5. To Remove Peak Indicator Circuit Board

1) Pull out connector in direction shown by arrow. Unsolder level meter terminals ((1) through (4)) and pull in arrow indicated direction.
(Refer to Fig. 6)

6. To Remove LED Circuit Board

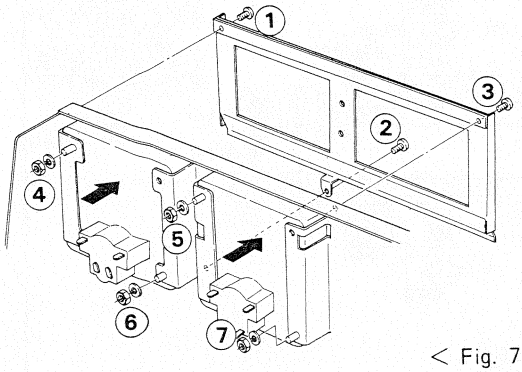
1) Remove two screws, (5) and (6).
(Refer to Fig. 6)



< Fig. 6 >

7. To Remove Level Meter

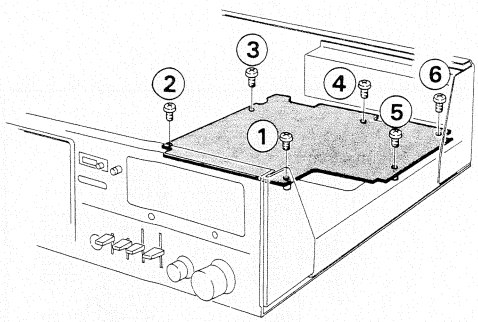
1) Remove three screws, ((1) through (3)) securing level meter.
2) Remove four washers and nuts ((4) through (7)) holding level meters to chassis. Level meters can then be removed from chassis by pushing in direction shown by arrows. (Refer to Fig. 7)



< Fig. 7 >

8. To Remove Main Circuit Board

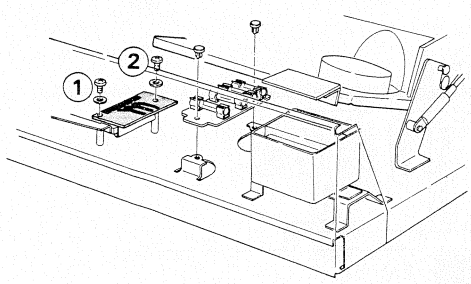
1) Remove five screws, (1) through (6). (Refer to Fig. 8)



< Fig. 8 >

9. To Remove Bias Circuit Board

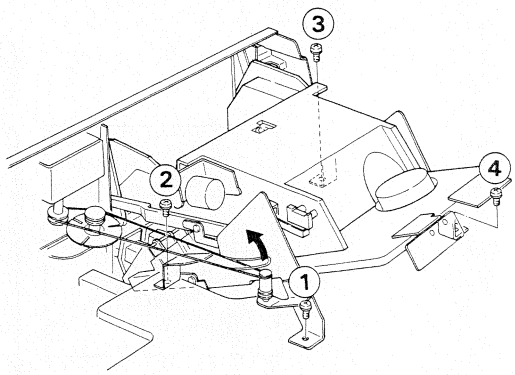
1) Remove two screws and washers, (1) and (2). (Refer to Fig. 9)



< Fig. 9 >

10. To Remove Mechanism

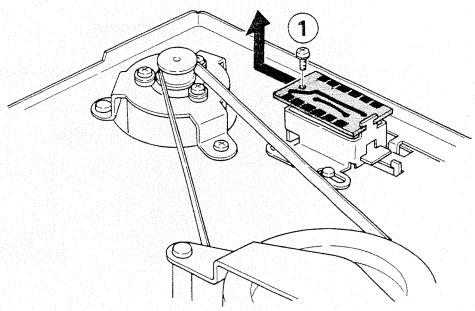
1) Remove four screws, (1) through (4). (Refer to Fig. 10)



< Fig. 10 >

11. To Remove Stop Muting Circuit Board

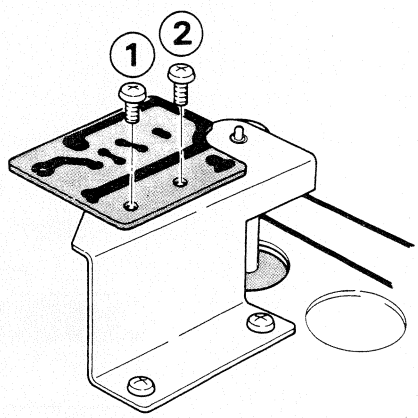
1) Remove one screw (1). (Refer to Fig. 11)



< Fig. 11 >

12. To Remove Auto-Stop Detection Circuit Board

1) Remove two screws, (1) and (2). (Refer to Fig. 12)

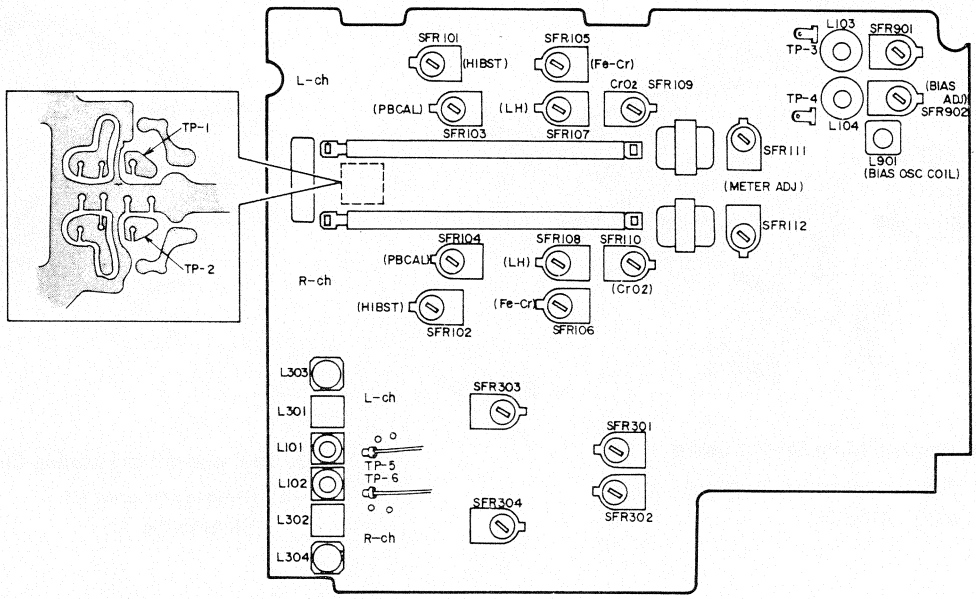


< Fig. 12 >

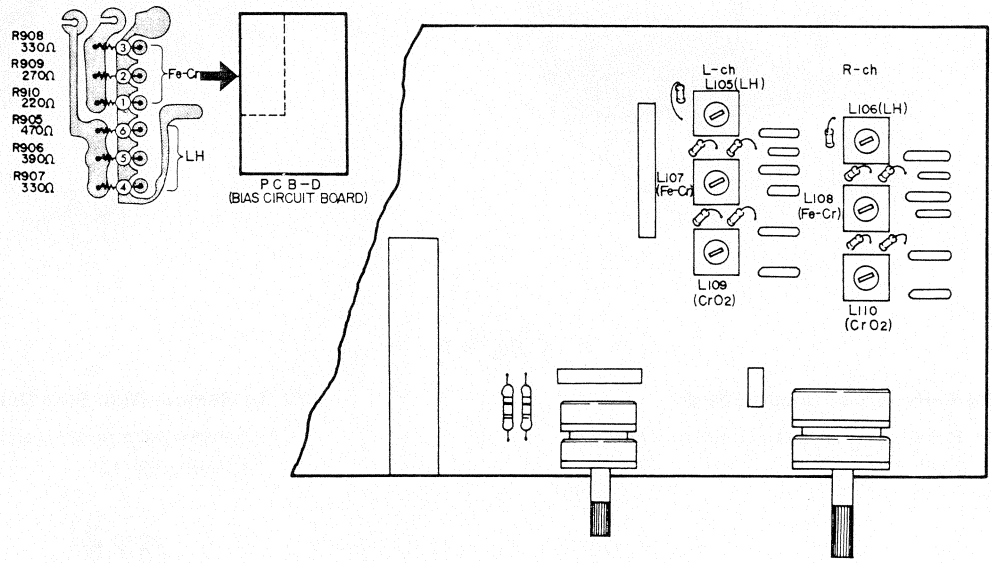
ADJUSTMENTS

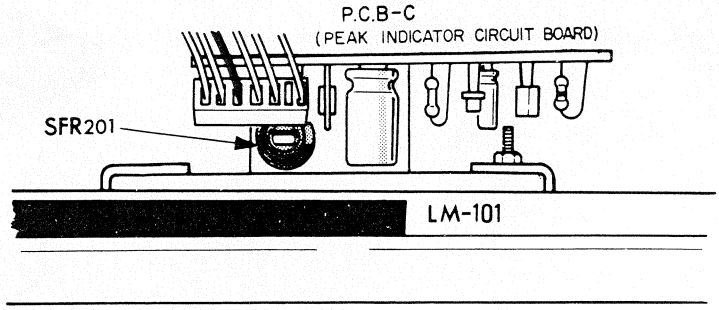
■ ELECTRICAL SECTION

- **Main Component Locations**



Bias current adjustment.





■ PLAYBACK ADJUSTMENTS

- **Conditions:**
  Dolby-NR ..... OFF INPUT SELECTOR ..... LINE OUTPUT LEVEL ... MAX OUTPUT ..... LINE OUT

Adjustment Azimuth	Tape Selector	Test Tape	Adjustment Location	Specification
Item	CrO_2	TTA-117E	Rec./Pb head azimuth screw	10 kHz portion output maximum for both L & R channels
Tape	LH	TTA-111	Motor circuit board speed semi-fixed resistor	2990 ~ 3010 Hz
Playback Level	LH	TTA-161	L-ch: SFR103 R-ch: SFR104	1.1V
Playback Frequency Response	CrO_2	TTA-117E	L-ch: SFR101 R-ch: SFR102	1 kHz/10KHz flat
Confirmation of Playback Frequency Response	LH	TTA-117E	–	Confirm that 10 kHz output is +3dB ~ +5dB with reference to 1 kHz.

RECORDING ADJUSTMENTS

- **Conditions:**
  Dolby-NR ..... OFF INPUT SELECTOR ..... LINE OUTPUT LEVEL ..... MAX TAPE SELECTOR ..... CrO_2

Adjustment Item	Test Point	Adjustment Location	Specification
Bias Osc Frequency	Both erase head terminals	L901	95 kHz ± 5 kHz
Bias Trap Coil	L-ch TP-3 R-ch TP-4	L-ch L103 R-ch L104	Adjust for minimum voltage at test point
Dolby Trap Coil	L-ch TP-5 R-ch TP-6	L101 L102	Adjust for minimum voltage
Bias Current	L-ch TP-1 R-ch TP-2	SFR901 SFR902	2mV (200μA) at test point

- **Conditions:**
  Dolby-NR ..... OFF, INPUT SELECTOR ..... LINE OUTPUT LEVEL ..... MAX, INPUT ..... LINE IN
  OUTPUT ..... LINE OUT

Adjustment Item	Adjustment Location	Specification
Level Meter	L-ch SFR111 R-ch SFR112	With 400 Hz signal applied and at 1.1V output, the set VU meters shall indicate the Dolby mark.

■ REC/PB FREQUENCY RESPONSE ADJUSTMENTS

1. Bias Current Adjustment

- **Conditions:**
  Apply 500Hz/5kHz –45dB input signal and adjust Rec. control 0.775V Line Out level.

Tape Selector	Test Tape	Specification	5 kHz Level High	5 kHz Level Low	Adjustment Location
CrO_2	TTA-119D	500Hz ~ 5 kHz ± 0.5 dB	Increase bias current beyond 200μA(2mV)	Reduce bias current below 200μA (2mV)	L-ch SFR901 R-ch SFR902
Fe-Cr	TTA-119E	500Hz ~ 5 kHz ± 0.5 dB	Connect (1) pattern	Connect (3) pattern	Connect pattern to one point among (1) ~ (3)
LH	TTA-119A	500Hz ~ 5 kHz ± 0.5 dB	Connect (4) pattern	Connect (6) pattern	Connect pattern to one point among (4) ~ (6)

2. Recording Equalizer Adjustment (Hi peaking)

- **Conditions:**
  Apply 500Hz / 10kHz / 5kHz –45 dB input signal and adjust Rec. control for 0.775V Line Out level.

Tape Selector	Test Tape	Specification (500 Hz standard)				Adjustment Location	
CrO_2	TTA-119D	10 kHz	+0.5 ± 0.5 dB	15 kHz	0 ± 1.5 dB	L-ch L109	R-ch L111
Fe-Cr	TTA-119E	10 kHz	0 ± 0.5 dB	15 kHz	0 ± 0.5 dB	L-ch L107	R-ch L108
LH	TTA-119A	10 kHz	–0.5 ± 1 dB	15 kHz	–	L-ch L115	R-ch L106

■ REC/PB LEVEL ADJUSTMENT

- **Conditions:**
  Apply 2 kHz −25dB input signal and adjust Rec. control for 0.775V Line Out level.

Tape Selector	Test Tape	Adjustment Location	Specification
CrO_2	TTA-119D	L-ch SFR109	0.775V±0.25dB
		R-ch SFR110	
Fe-Cr	TTA-119E	L-ch SFR107	0.775V±0.25dB
		R-ch SFR108	
LH	TTA-119A	L-ch SFR105	0.775V±0.25dB
		R-ch SFR106	

■ PEAK INDICATOR INDICATION ADJUSTMENT

With set in record mode, apply 400 Hz 20 dB signal from LINE IN. Adjust REC controls for 0 VU indication on VU meters. At −14 dB ATT (level meter indicates +6 dB), adjust peak indicator trimmer (SFR201) to where the red indicator (+7 dB) just extinguishes. After adjusting, set ATT to −13 dB and confirm that red indicator lights.
Vary the ATT in the −17 dB area and read the value at which the yellow indicator (+3 dB) just extinguishes.

- **Specification:** −18 ± 1 dB

■ ELECTRICAL MEASUREMENTS

1. Playback Output

Test Tape	Specification	Remarks
TTA-161	1.1V ±0.05V	Set VU meters shall indicate Dolby marks

2. Rec./Pb. Distortion & Output

Input signal: 400Hz OVU

Test Tape	Tape Selector	Rec/Pb Distortion	Rec./Pb Output
TTA-119D	CrO_2	Less than 3.0%	0 dB ±0.5 dB
TTA-119E	Fe-Cr	Less than 1.5%	0 dB ±0.5 dB
TTA-119A	LH	Less than 2%	$0\ dB\ {}^{+0}_{-1}\ dB$

3. Rec./Pb. Frequency Response

Input signal: 1kHz-100kHz-10kHz-15kHz OVU −20dB

Frequency	Test Tape TTA-119D Tape Selector CrO_2	Test Tape TTA-119E Tape Selector Fe-Cr	Test Tape TTA-119A Tape Selector LH
1 kHz	0 dB	0 dB	0 dB
100 Hz	$^{+2}_{-3}$ dB	$^{+2}_{-3}$ dB	$^{+2}_{-3}$ dB
10 kHz	±2 dB	±2 dB	$^{+2}_{-3}$ dB
15 kHz	$^{+2}_{-4}$ dB	$^{+1}_{-4}$ dB	

4. Rec./Pb. S/N

Input signal: 400 Hz OVU/no signal (input shorted)

Dolby-NR	Test Tape	Tape Selector	Input Siganl	S/N (dB)
OFF	TTA-119D	CrO_2	400 Hz	44
			No signal	
	TTA-119E	Fe-Cr	400 Hz	44
			No signal	
	TTA-119A	LH	400 Hz	42
			No signal	
ON	TTA-119D	CrO_2	400 Hz	47
			No signal	
	TTA-119E	Fe-Cr	400 Hz	49
			No signal	
	TTA-119A	LH	400 Hz	49
			No signal	

5. Erase Efficiency

Input signal: 400 Hz OVU +10 dB
Use bandpass filter

Tape Selector	Test Tape	Specification
CrO_2	TTA-119D	More than 60 dB
Fe-Cr	TTA-119E	More than 60 dB
LH	TTA-119A	More than 60 dB

6. Cross Talk & Separation

Input signal: 400 Hz OVU
Use bandpass filter

Measurement Item	Tape Selector	Test Tape	Specification
Cross Talk	CrO_2	TTA-119D	More than 60 dB
Separation	CrO_2	TTA-119D	More than 60 dB

7. Playback S/N

Tape Selector	Test Tape	Specification	Remarks
LH	TTA-161	More than 46 dB	Measure level difference between TTA-161 playback and pause modes.

8. Residual Hum

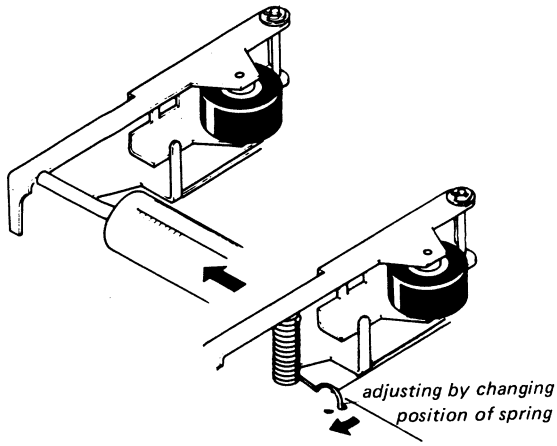
Tape Selector	Test Tape	Specification	Remarks
CrO_2	TTA-119D	Less than 3mV	Dolby-NR On

ADJUSTMENTS

■ Mechanical Section

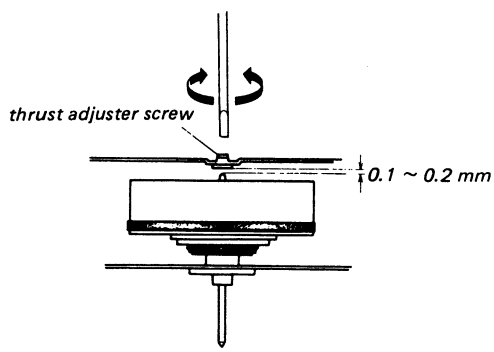
1. Pinch Roller Pressure Adjustment
— playback mode —

When the set is in PLAY position, employ a 500g tension gauge to press the pinch roller. Confirm that a value of 310 ± 40 is obtained when the rotation stops.



2. Thrust Screw Adjustment
— stop mode —

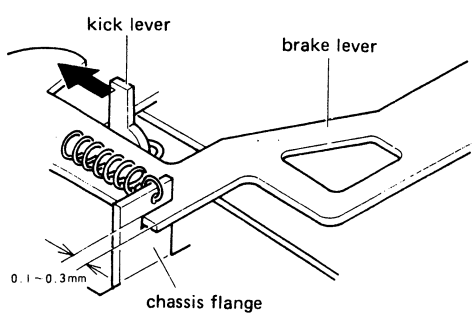
With the set at stop condition, turn the adjusting screw clockwise or counter-clockwise for a flywheel thrust of 0.1 ~ 0.2 mm. After adjusting, apply locking compound to the screw.



3. Kick Lever Bending Adjustment

The kick lever bending adjustment is performed for extending the brake lever stroke during F.FWD and REW.

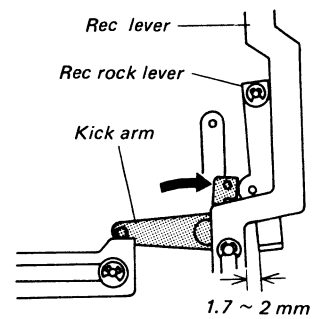
Adjustment:
With the set in F. FWD and REW position, adjust by bending the kick lever in the arrow direction so that spacing between the brake lever and chassis flange becomes 0.1 – 0.3 mm.



4. REC Release Timing Adjustment

1) At REC release, confirm that the set proceeds to review operation.
2) When set from REC to REVIEW, confirm that REC is released.
3) During REVIEW, depress the REC button and confirm that REC is not obtained.

Adjustment:
1) While maintaining the set in REVIEW position, bend the REC kick arm in the arrow direction and adjust for 1.7 – 2.0 mm spacing between the REC lock lever and REC lever.
2) If REC is obtained at above condition 3), the REC kick arm has been bent excessively. Adjust it back to the 2 mm position.
3) If REC is not released at review, the REC kick arm bending is not sufficient. Adjust by bending to more than 1.7 mm.



5. Tape Speed
3kHz ±1%
Use a standard test tape, TTA-111 (3kHz) or equivalent.

6. Wow and Flutter
0.05% (WRMS) at PB
Use a standard test tape, TTA-111 (3kHz) or equivalent.

7. Take-up Torque
40 ~ 60g-cm

8. Rewind Torque
100 ~ 160g-cm

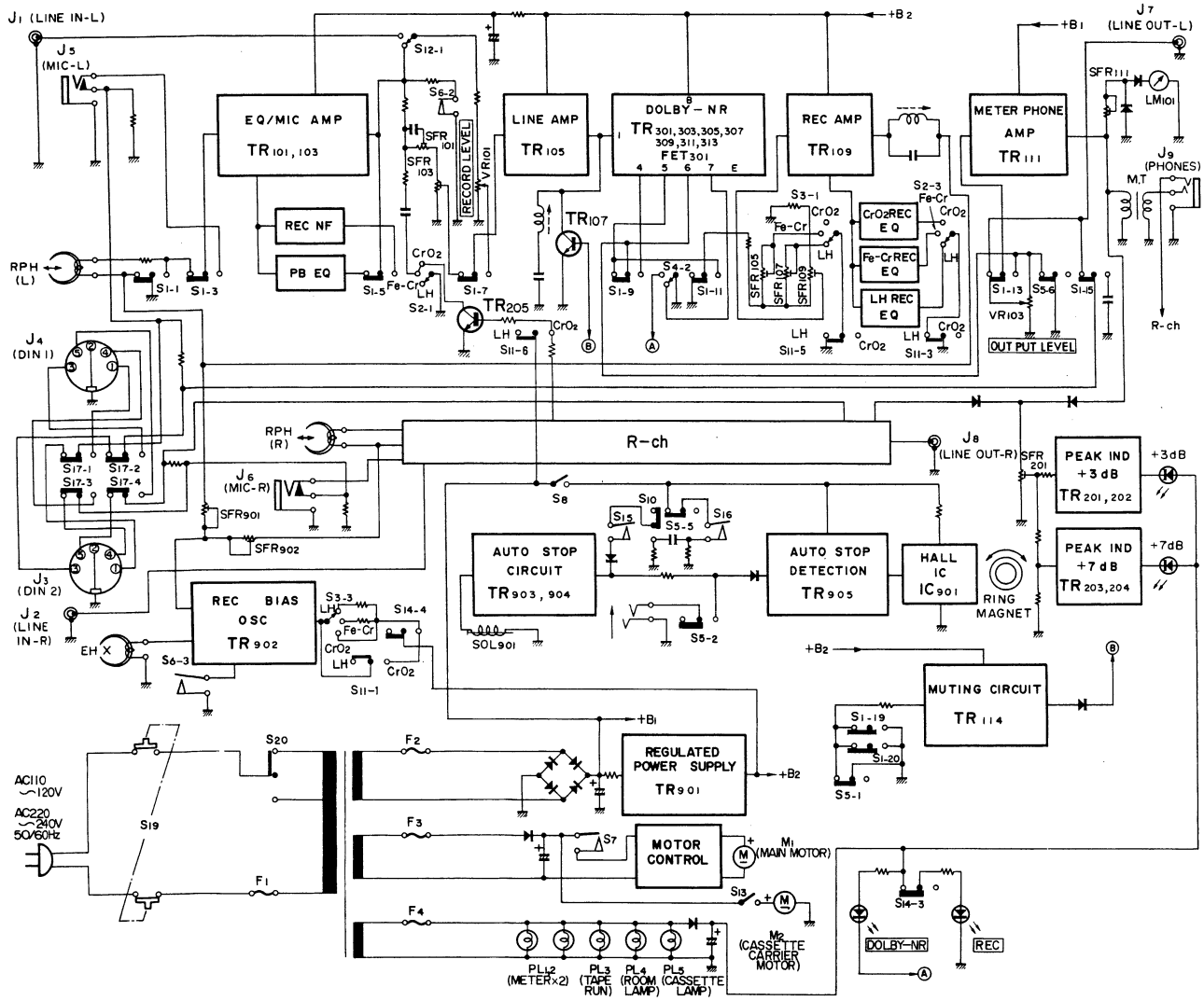
9. FF Torque
100 ~ 160g-cm

10. Rewind Time
100 ±10 sec. (at C-60 cassette tape)

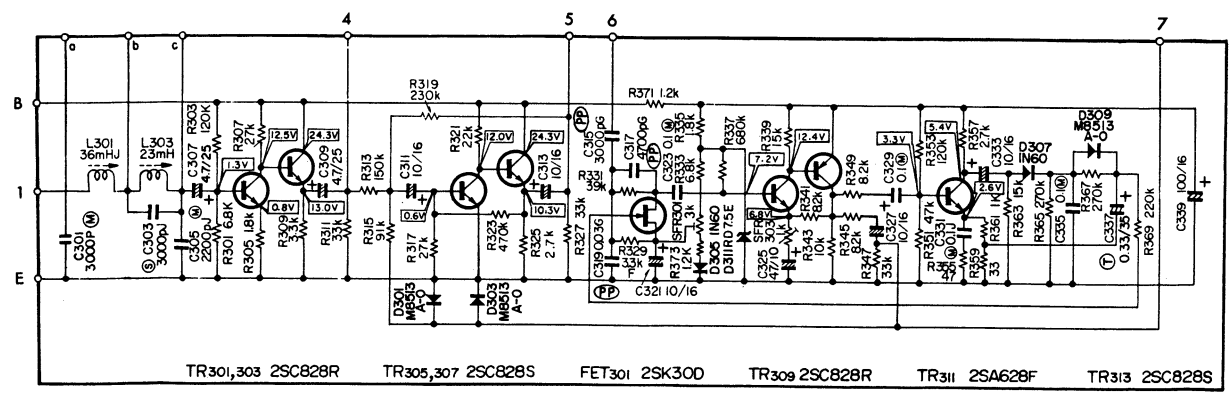
11. FF Time
95 ±10 sec. (at C-60 cassette tape)

12. Automatic shut-off Time
3 ± 2 sec.

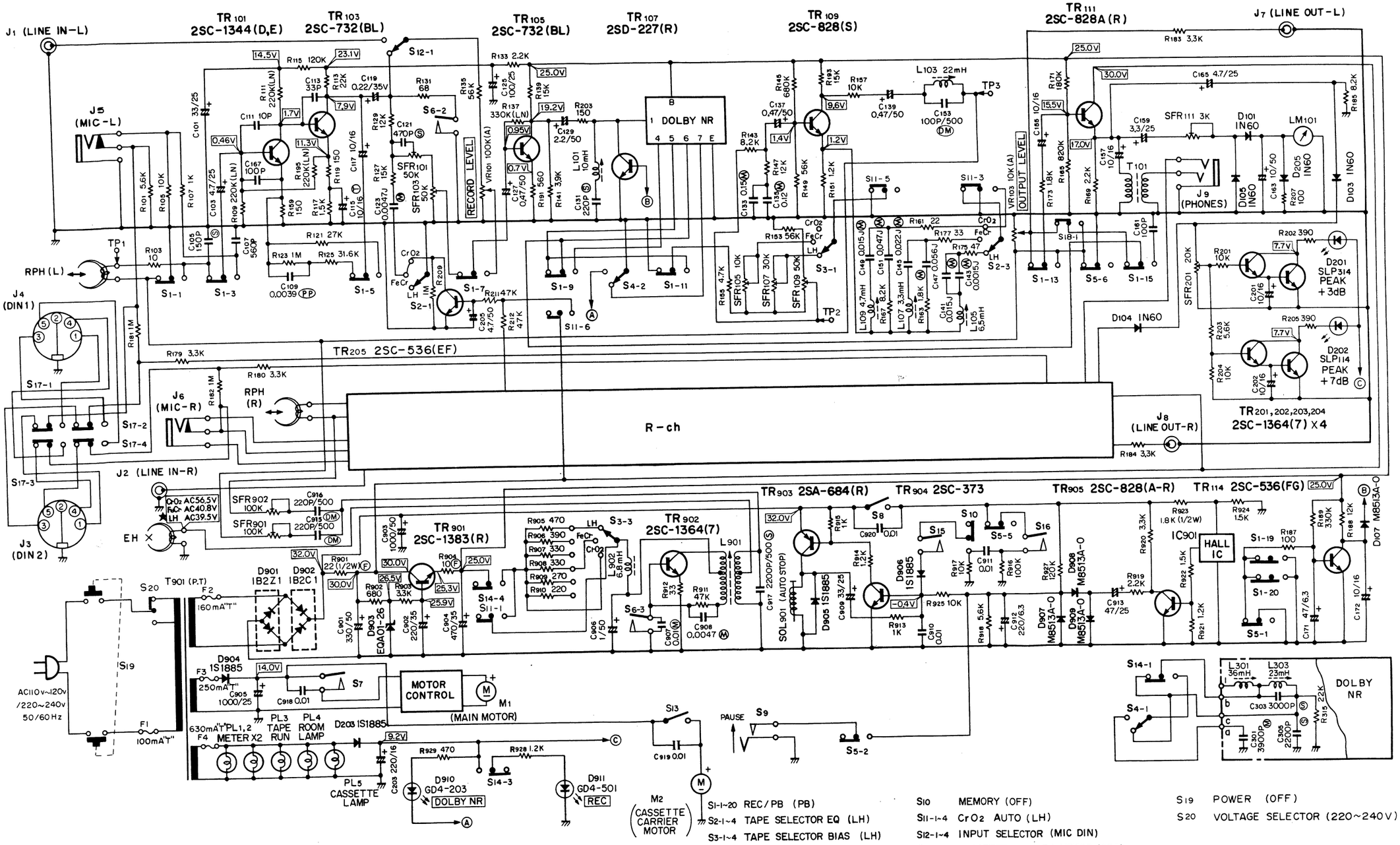
BLOCK DIAGRAM



SCHEMATIC DIAGRAM, DOLBY-NR



SCHEMATIC DIAGRAM

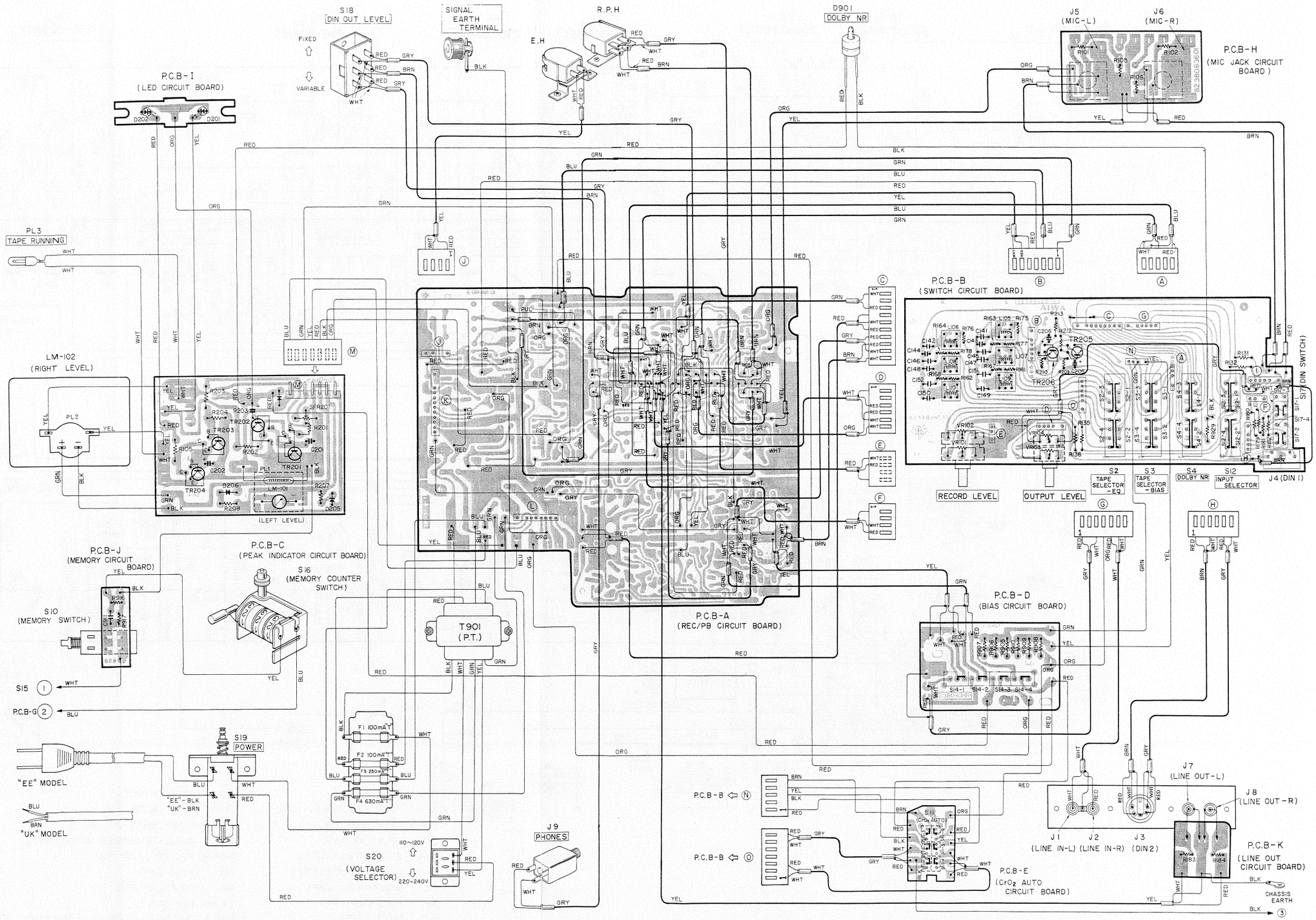


S1-1~20 REC/PB (PB)
S2-1~4 TAPE SELECTOR EQ (LH)
S3-1~4 TAPE SELECTOR BIAS (LH)
S4-1~4 DOLBY NR (OFF)
S5-1~6 STOP MUTING (STOP)
S6-1~3 CUE/REV MUTING (OFF)
S7 MAIN MOTOR (OFF)
S8 AUTO STOP (OFF)
S9 PAUSE (OFF)

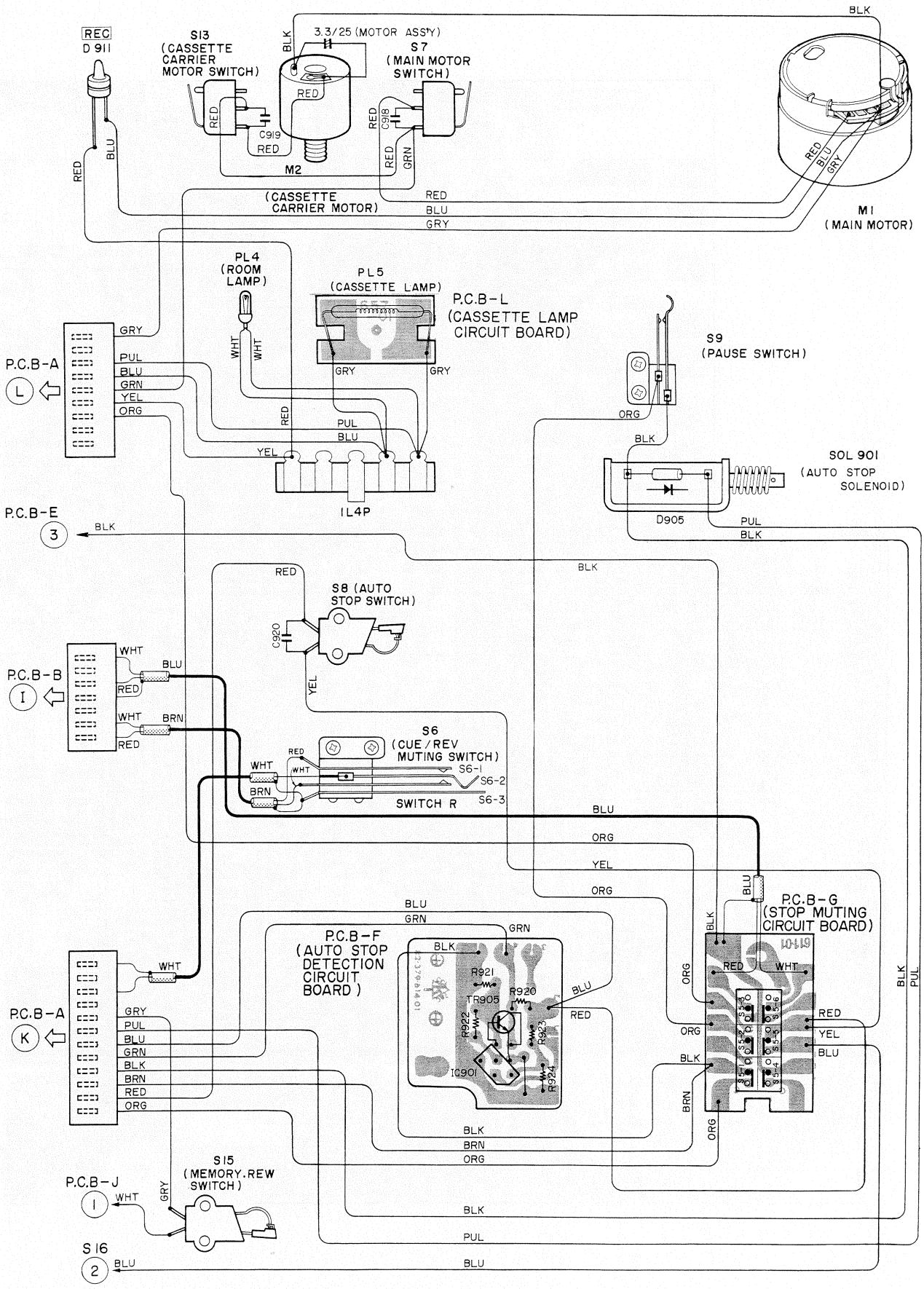
S10 MEMORY (OFF)
S11-1~4 CrO2 AUTO (LH)
S12-1~4 INPUT SELECTOR (MIC DIN)
S13 CASSETTE CARRIER MOTOR (OFF)
S14-1~4 REC/PB LAMP (PB)
S15 REW (OFF)
S16 COUNTOR (OFF)
S17-1~4 DIN (DIN 2)
S18-1~2 DIN OUTPUT LEVEL (VARIABLE)

S19 POWER (OFF)
S20 VOLTAGE SELECTOR (220~240V)

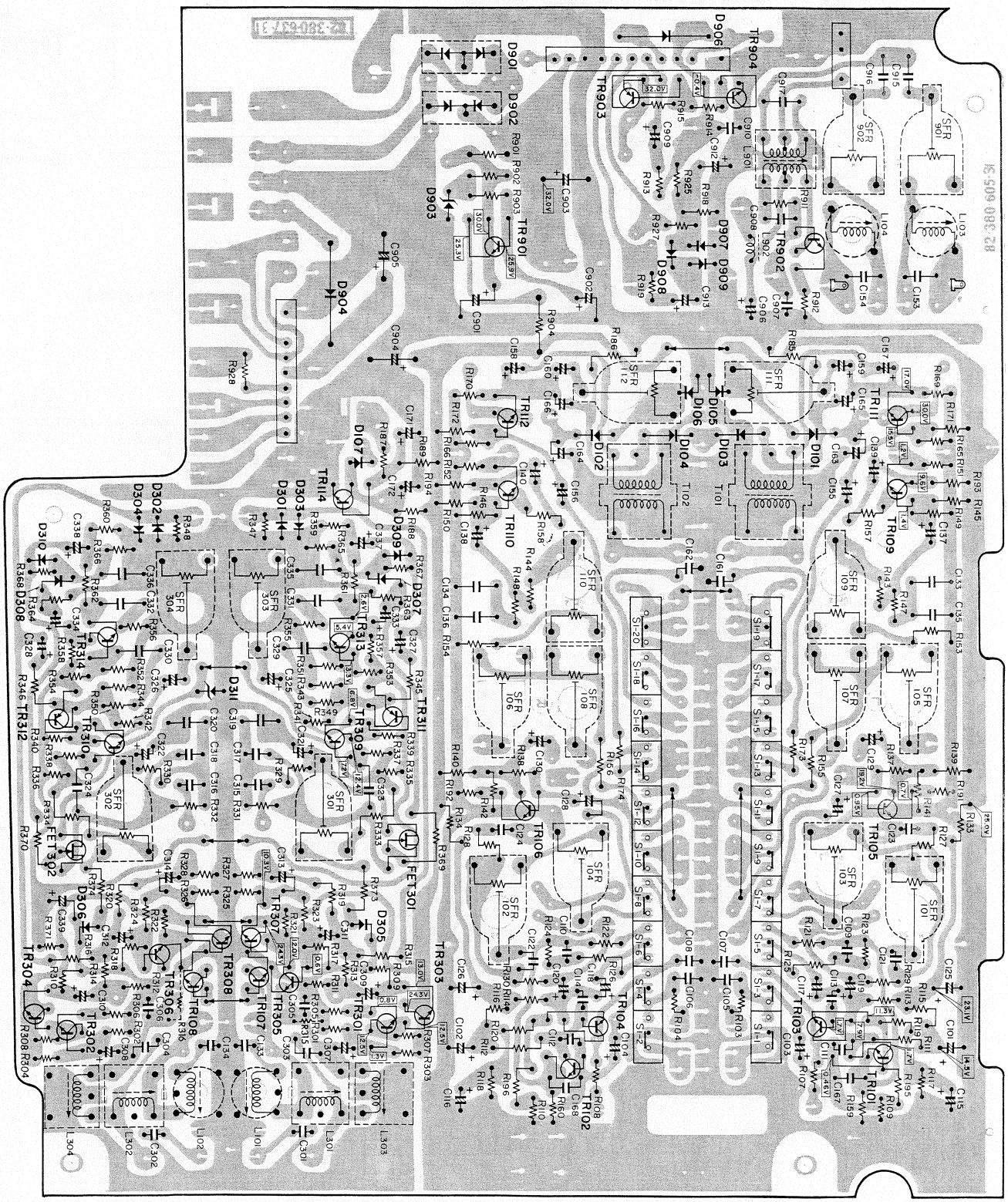
WIRING

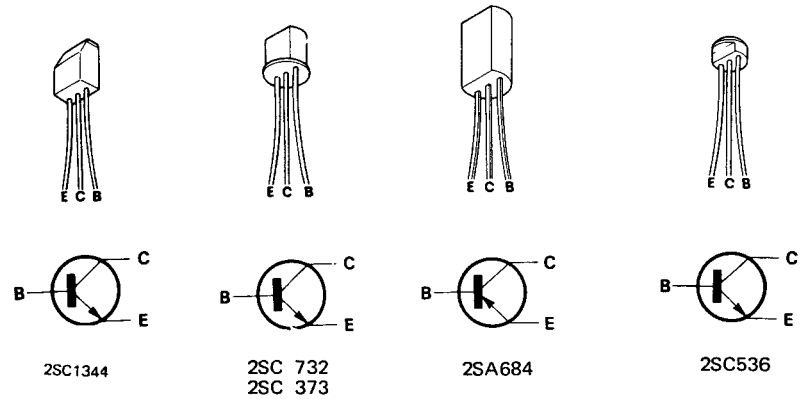

S18
DIN OUT LEVEL
FIXED
VARIABLE
SIGNAL EARTH TERMINAL
R.P.H
E.H
D901
DOLBY NR
J5
(MIC-L)
J6
(MIC-R)
P.C.B-H
(MIC JACK CIRCUIT BOARD)
P.C.B-I
(LED CIRCUIT BOARD)
D202
D201
PL3
TAPE RUNNING
LM-102
(RIGHT LEVEL)
PL2
(LEFT LEVEL)
P.C.B-A
(REC/PB CIRCUIT BOARD)
P.C.B-B
(SWITCH CIRCUIT BOARD)
TR205
TR206
P.C.B-J
(MEMORY CIRCUIT BOARD)
S10
(MEMORY SWITCH)
S16
(MEMORY COUNTER SWITCH)
P.C.B-C
(PEAK INDICATOR CIRCUIT BOARD)
T901
(P.T.)
P.C.B-D
(BIAS CIRCUIT BOARD)
S15
P.C.B-G
S19
POWER
"EE" MODEL
"UK" MODEL
"EE"-BLK
"UK"-BRN
F1 100mA
F2 100mA
F3 250mA
F4 630mA
S20
(VOLTAGE SELECTOR)
110~120V
220~240V
J9
PHONES
P.C.B-B
P.C.B-E
(CrO2 AUTO CIRCUIT BOARD)
J7
(LINE OUT-L)
J8
(LINE OUT-R)
J1
(LINE IN-L)
J2
(LINE IN-R)
J3
(DIN2)
P.C.B-K
(LINE OUT CIRCUIT BOARD)
CHASSIS EARTH
RECORD LEVEL
OUTPUT LEVEL
S2
TAPE SELECTOR -EQ
S3
TAPE SELECTOR -BIAS
S4
DOLBY NR
S12
INPUT SELECTOR
J4 (DIN I)
S17 (DIN SWITCH)

WIRING

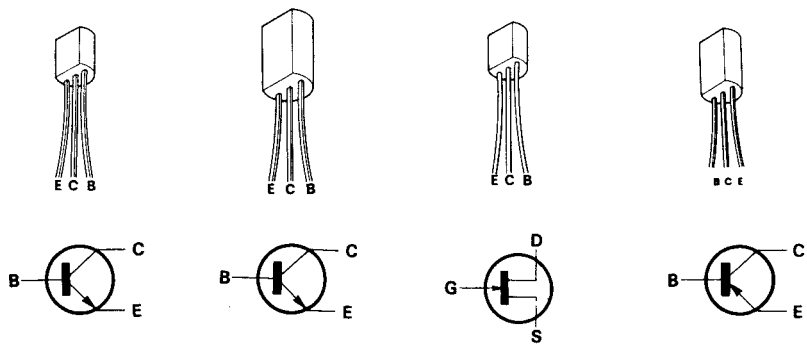

REC
D 911
S13
(CASSETTE
CARRIER
MOTOR SWITCH)
3.3/25 (MOTOR ASSY)
S7
(MAIN MOTOR
SWITCH)
M2
(CASSETTE
CARRIER MOTOR)
M1
(MAIN MOTOR)
PL4
(ROOM
LAMP)
PL5
(CASSETTE LAMP)
P.C.B-L
(CASSETTE LAMP
CIRCUIT BOARD)
S9
(PAUSE SWITCH)
P.C.B-A
P.C.B-E
P.C.B-B
P.C.B-F
(AUTO STOP
DETECTION
CIRCUIT
BOARD)
P.C.B-G
(STOP MUTING
CIRCUIT BOARD)
SOL 901
(AUTO STOP
SOLENOID)
S8 (AUTO
STOP SWITCH)
S6
(CUE/REV
MUTING SWITCH)
SWITCH R
S15
(MEMORY.REW
SWITCH)
S16
P.C.B-J
IL4P
D905
IC901
TR905
R921
R920
R922
R923
R924
C919
C918
C920

MAIN CIRCUIT BOARD

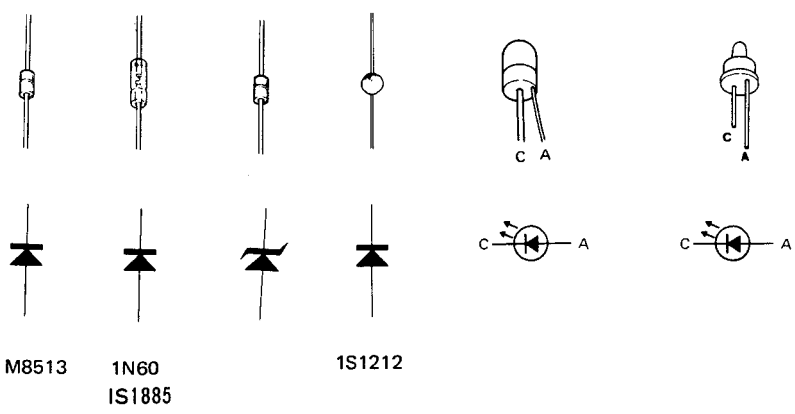




2SC1344 | 2SC 732 2SC 373 | 2SA684 | 2SC536

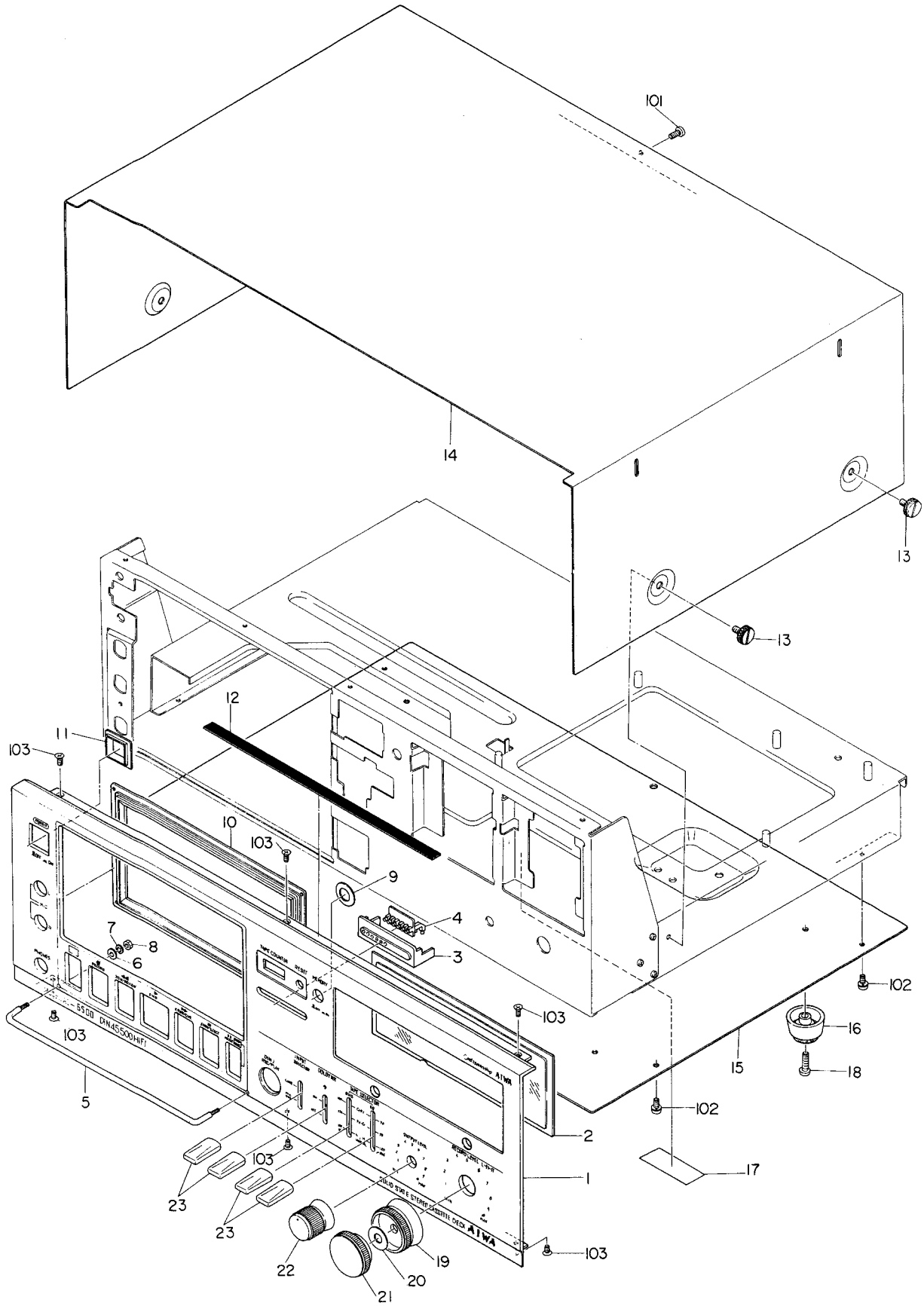


2SC227 2SC828 | 2SC1364 2SC1383 | 2SK30 | 2SA628



M8513 | 1N60 IS1885 | 1S1212

EXPLODED VIEW-1



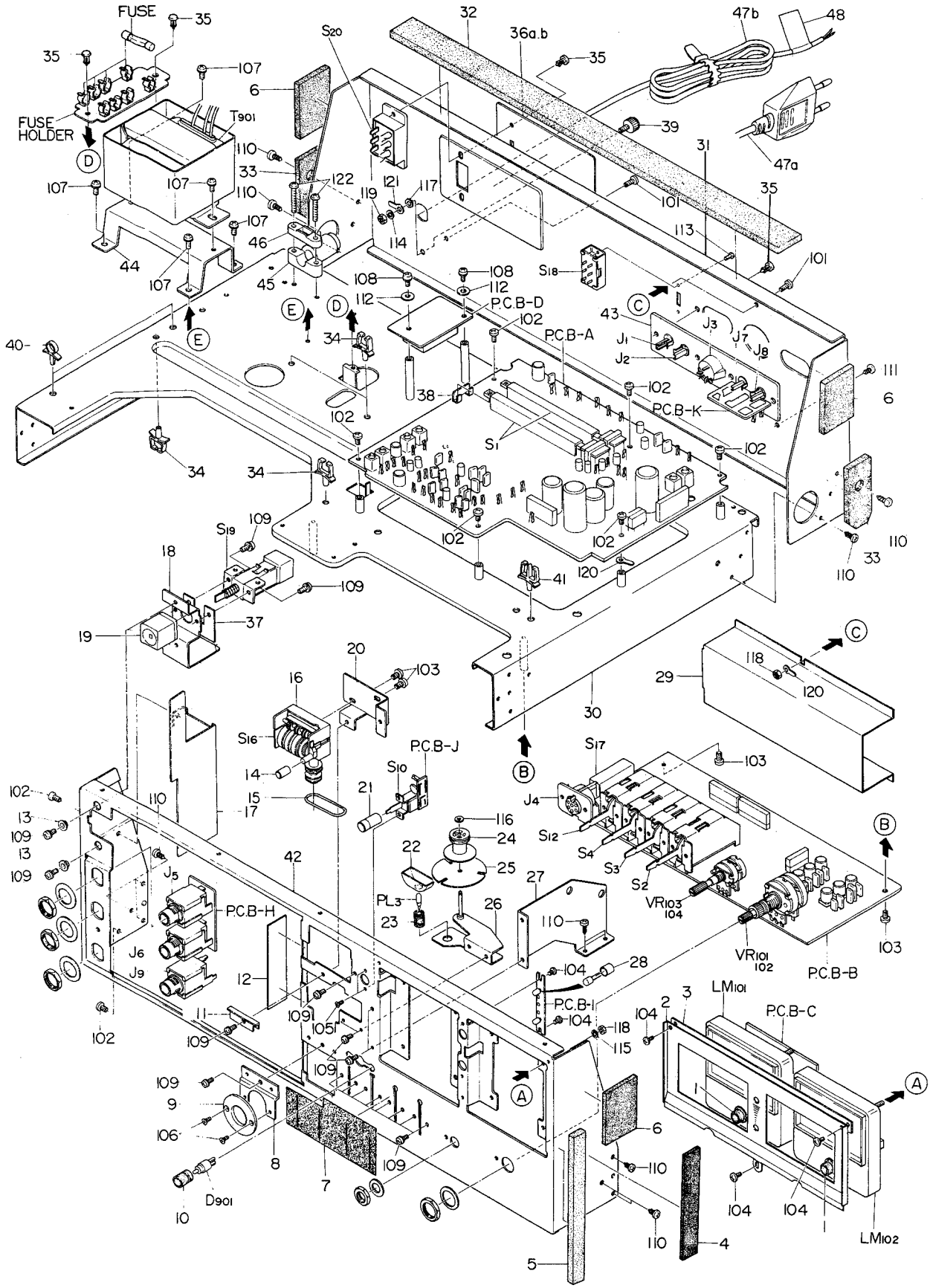
PARTS LIST

MECHANICAL PARTS

■ * marks in this parts list shows exclusive part (which is used) for only model AD-6500.

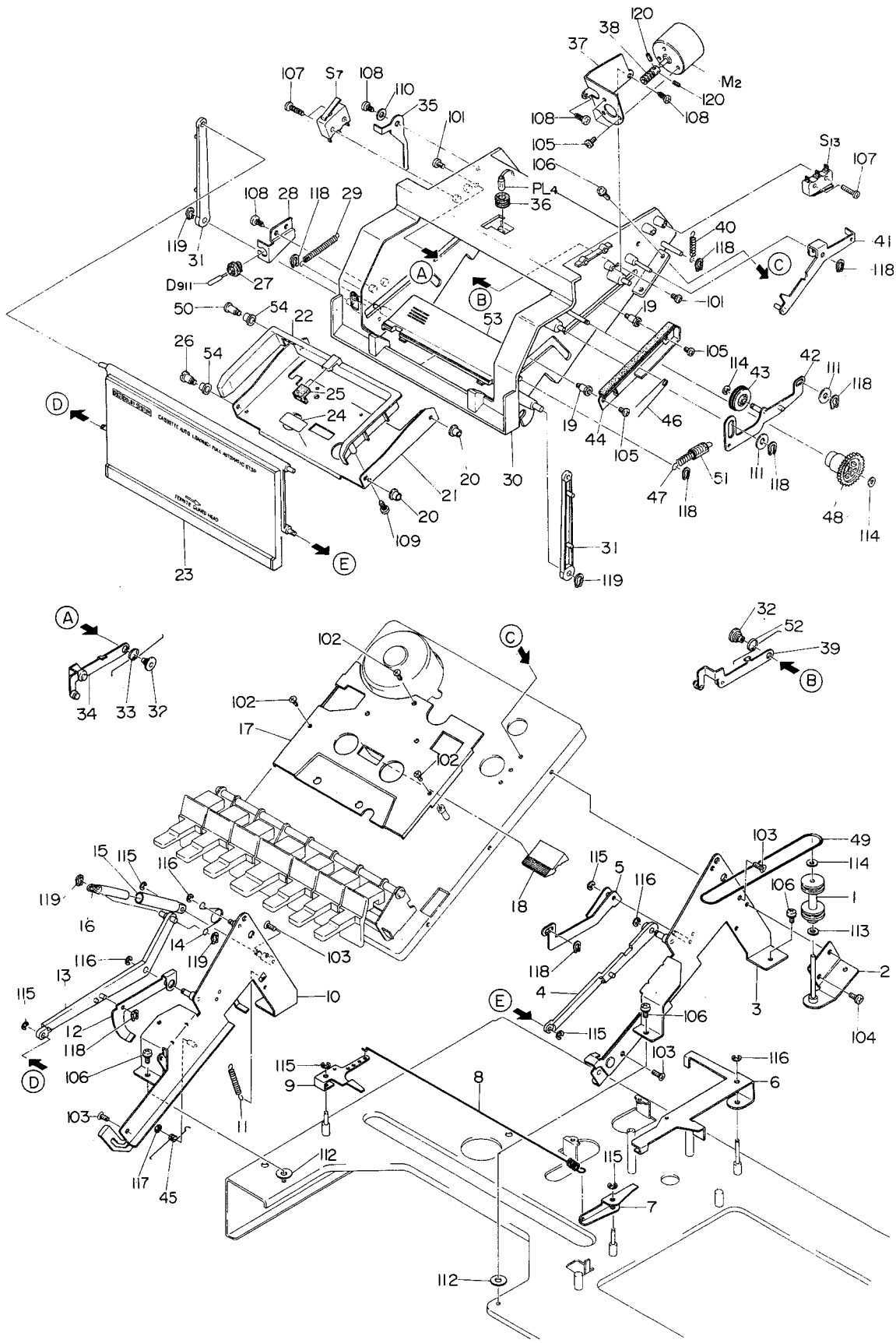
Ref No.	Part No.	Part No. Changed to	Description	Common Model	Q'ty
1 ~ 12	80-003-804-41		**Panel Assembly** (EE model only)		
1 ~ 12	80-003-804-01		**Panel Assembly** (UK model only)		
1-1	82-380-077-01		Front panel	*	1
1-2	82-380-064-01		Meter window B	*	1
1-3	82-380-024-01		Panel, Tape running	*	1
1-4	82-380-025-01		Window, Tape running	*	1
1-5	82-380-063-01		Push button bar	*	1
1-6	87-410-306-01		W3-6-0.5		2
1-7	82-421-313-01		SW-3		2
1-8	87-319-018-01		N-3		2
1-9	82-380-075-01		Brind himeron, Memory button	*	1
1-10	82-380-006-01		Front panel B	*	1
1-11	82-380-026-01		Guide, Power button	*	1
1-12	82-380-445-01		Spacer, Top panel	*	2
1-13	82-473-047-01		Screw, Top panel		4
1-14	82-380-067-01		Top panel B	*	1
1-15	82-380-004-01		Bottom lid	*	1
1-16	87-085-141-01		Leg		4
1-17	87-057-479-01		Label, DOLBY		1
1-18	87-233-094-01		V + 4 – 10		4
1-19	82-380-058-01		Volume knob B, REC	*	1
1-20	82-380-437-01		Washer, Volume knob	*	1
1-21	82-380-057-01		Volume knob A, REC	*	1
1-22	82-380-059-01		Volume knob, Playback	*	1
1-23	82-380-022-01		Selector knob	*	4

EXPLODED VIEW–2



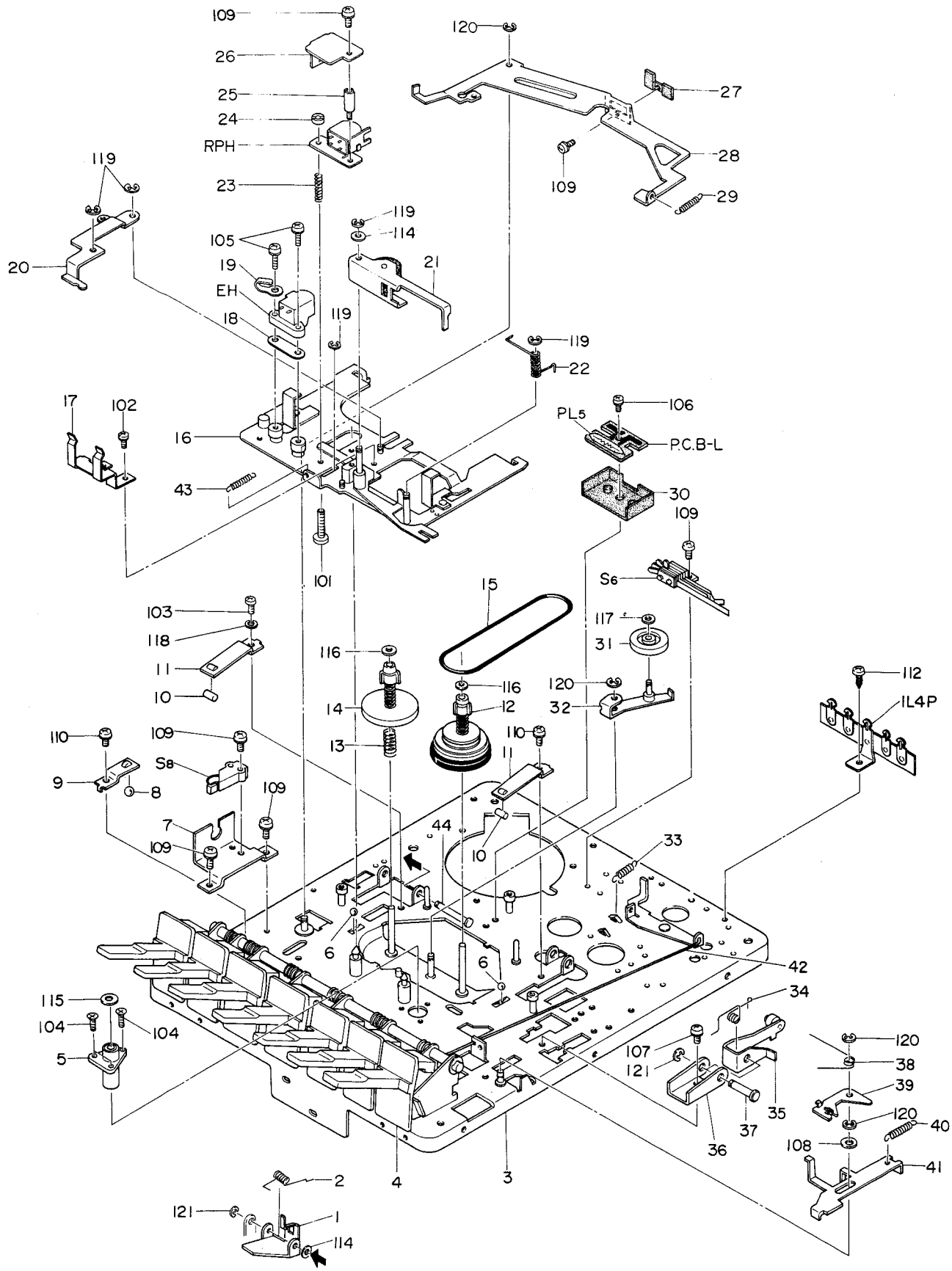
Ref. No.	Part No.	Part No. Changed to	Description	Common Model	Q'ty
2-1	82-380-377-01		Cover, Meter	*	2
2-2	82-380-060-01		Name plate, Meter	*	1
2-3	82-380-376-01		Spacer, Meter name plate	*	1
2-4	82-473-248-01		Spacer, Top panel		1
2-5	82-380-412-01		Cushion, Top panel	*	1
2-6	82-473-247-01		Spacer B, Top panel		3
2-7	82-380-037-01		Cover, Selector switch	*	1
2-8	82-380-355-01		Holder, DIN jack	*	1
2-9	82-380-073-01		Cover, DIN	*	1
2-10	82-380-279-01		Lamp bushing	*	1
2-11	82-380-367-01		Cover, Front chassis	*	1
2-12	82-380-375-01		Cover B, Front chassis	*	1
2-13	82-380-292-01		Collar, AC holder	*	2
2-14	82-432-036-01		Button, Counter	TPR-212	1
2-15	82-380-440-01		Belt C, Counter	*	1
2-16	87-040-080-01		Counter		1
2-17	82-380-624-01		Shield plate	*	1
2-18	82-380-298-01		AC switch holder	*	1
2-19	82-380-013-01		Power button ass'y	*	1
2-20	82-380-276-01		Holder, Counter	*	1
2-21	82-380-016-01		Memory button ass'y	*	1
2-22	82-380-280-01		Reflector mirror	*	1
2-23	82-380-344-01		Lamp bushing B	*	1
2-24	82-380-282-01		Shadow pulley	*	1
2-25	82-380-372-01		Shadow plate B	*	1
2-26	82-380-242-01		Tape running holder ass'y	*	2
2-27	82-380-275-01		Auxiliary plate	*	1
2-28	82-380-380-01		Supporting collar, Diode	*	1
2-29	82-380-654-01		Shield plate	*	1
2-30	82-380-201-01		Amp. chassis ass'y	*	1
2-31	82-380-076-01		Rear panel	*	2
2-32	82-380-439-01		Spacer, Rear panel	*	1
2-33	82-473-245-01		Spacer A, Side panel		2
2-34	87-064-038-01		Wire clip A		6
2-35	87-085-102-01		Nylon rivet		8
2-36 a	82-380-077-01		Name plate, Spe. (EE model only)	*	1
2-36 b	82-380-028-01		Name plate, Spec. (UK model only)	*	1
2-37	82-380-430-01		Insulation fibre	*	1
2-38	82-371-474-01		Pressure plate, Rec. switch		1
2-39	87-033-088-01		Earth terminal		1
2-40	87-064-050-01		Wire clip E		2
2-41	87-064-051-01		Wire clip F		1
2-42	82-380-207-01		Front chassis	*	1
2-43	82-380-618-01		Jack board ass'y	*	1
2-44	82-380-447-01		Holder, Transformer	*	1
2-45	87-085-094-01		Holder A, AC power cord		1
2-46	87-085-095-01		Holder B, AC power cord		1
2-47(a)	87-034-835-01		AC power cord (EE model only)		1
2-47(b)	87-034-847-01		AC power cord (UK model only)		1
2-48	87-056-008-01		Label, AC power cord (UK model only)		1

EXPLODED VIEW–3



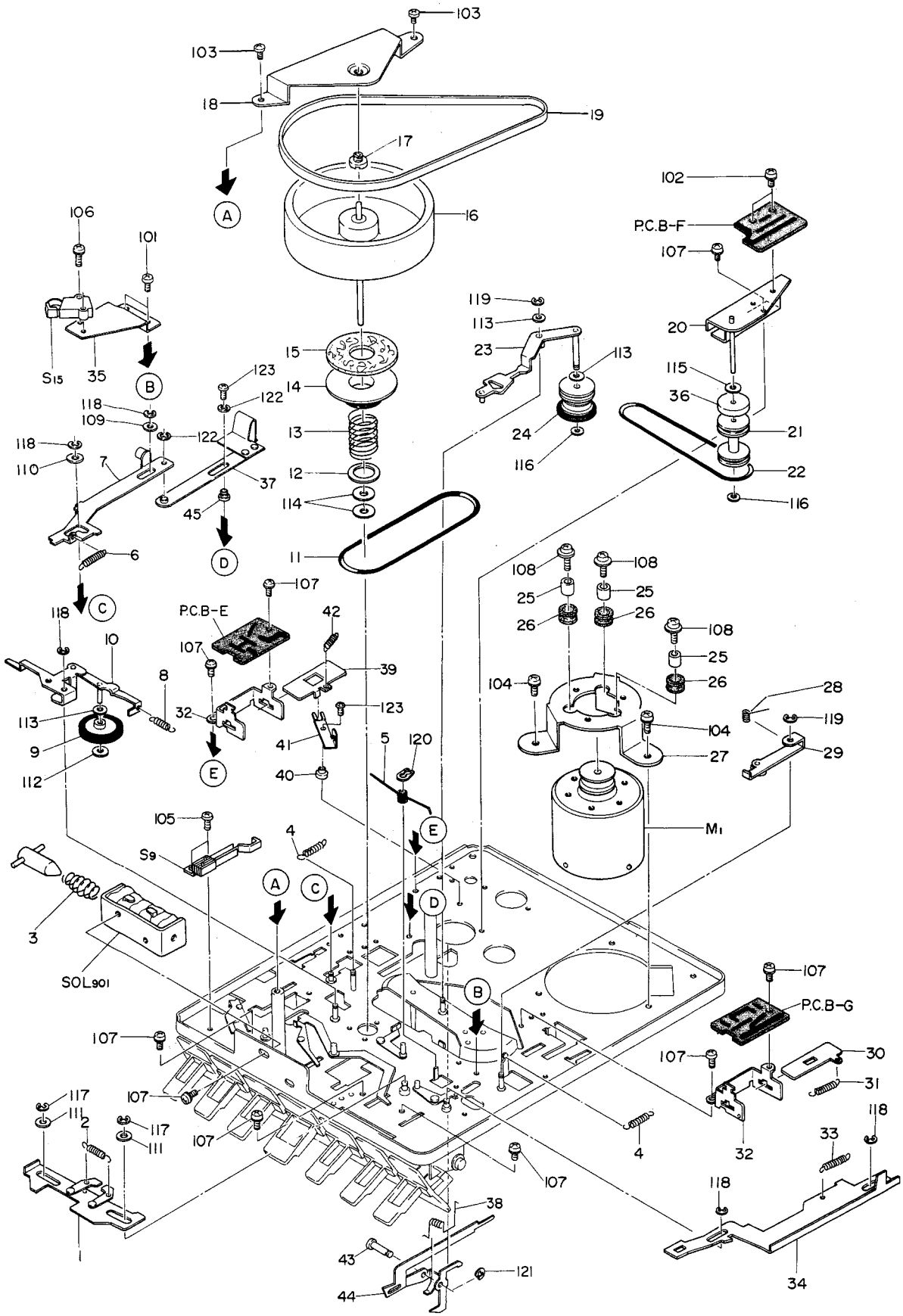
Ref. No.	Part No.	Part No. Changed to	Description	Common Model	Q'ty
3-1	82-380-338-01		Relay pulley B	*	1
3-2	82-380-312-01		Relay holder B ass'y	*	1
3-3	82-380-400-01		Chassis holder ass'y, Right	*	1
3-4	82-380-269-01		Lever R, Cassette lid	*	1
3-5	82-380-287-01		Lever, Cassette lid open	*	1
3-6	82-380-267-01		Rec. lever B	*	1
3-7	82-380-288-01		Relay lever A, Rec.	*	1
3-8	82-380-293-01		Spring, Rec.	*	1
3-9	82-374-246-01		Relay lever B, Rec.		1
3-10	82-380-226-01		Chassis holder assy, Left	*	1
3-11	82-380-307-01		Spring, Cassette lid open lever	*	1
3-12	82-380-274-01		Relay lever E	*	1
3-13	82-380-270-01		Lever L, Cassette lid	*	1
3-14	82-380-304-01		Plate spring, Cassette lid open	*	1
3-15	82-380-398 01		Shaft B, Damper	*	1
3-16	82-380-397-01		Shaft A, Damper	*	1
3-17	82-380-065-01		Back plate B	*	1
3-18	82-380-378-01		Tape window	*	1
3-19	82-380-358-01		Shaft A, Cassette-up plate	*	2
3-20	82-380-289-01		Collar A	*	2
3-21	82-380-436-01		Cassette-up plate	*	1
3-22	82-380-438-01		Cover, Cassette-up plate	*	1
3-23	82-380-071-01		Cassette lid ass'y	*	1
3-24	82-380-072-01		Label, Cassette insertion	*	1
3-25	82-380-291-01		Rubber, Cassette holder	*	1
3-26	82-380-360-01		Shaft C, Cassette-up plate	*	1
3-27	82-380-350-01		Cushion, Rec. lamp	*	1
3-28	82-380-349-01		Holder, Rec. lamp	*	1
3-29	82-380-305-01		Return spring, Cassette-up plate	*	1
3-30	82-380-391-01		Cassette-up plate guide ass'y	*	1
3-31	82-380-271-01		Lever A, Cassette lid	*	2
3-32	82-380-215-01		Shaft, Holder plate	*	2
3-33	82-380-416-01		Spring B, Cassette holder plate	*	1
3-34	82-380-221-01		Cassette holder plate ass'y, Left	*	1
3-35	82-380-390-01		Switch pressure plate B	*	1
3-36	82-371-831-01		Lamp bushing		1
3-37	82-380-389-01		Holder D, Motor	*	1
3-38	82-380-361-01		Warm gear	*	1
3-39	82-380-210-01		Cassette holder plate ass'y, Right	*	1
3-40	82-380-306-01		Spring B, Switch holder plate	*	1
3-41	82-380-261-01		Switch holder plate ass'y	*	1
3-42	82-380-257-01		Idler lever ass'y	*	1
3-43	82-380-250-01		Relay idler ass'y	*	1
3-44	82-380-253-01		Forward lever ass'y, Cassette-up	*	1
3-45	82-380-356-01		Spring, Relay lever	*	1
3-46	82-380-363-01		Spring, Forward lever; Cassette-up plate	*	1
3-47	82-380-308-01		Spring, Relay idler	*	1
3-48	82-380-273-01		Gear, Cassette forward	*	1
3-49	82-380-441-01		Belt D, Counter	*	1
3-50	82-380-359-01		Shaft D, Cassette-up plate	*	1
3-51	87-819-701-01		Tube		1
3-52	82-380-362-01		Spring, Cassette holder plate	*	1
3-53	82-380-040-01		Head cover	*	1
3-54	82-380-448-01		Collar B	*	2

EXPLODED VIEW–4



Ref. No.	Part No.	Part No. Changed to	Description	Common Model	Q'ty	
4-1	82-380-351-01		Record-blocking lever B	*	1	
4-2	82-371-356-01		Spring, Record-blocking lever		1	
4-3	82-380-325-01		Chassis ass'y	*	1	
4-4	82-380-329-01		Push switch B ass'y	*	1	
4-5	82-370-253-01		Shaft bearing ass'y		1	
4-6	82-215-341-01		Steel ball, 3/32		2	
4-7	82-370-336-01		Switch holder		1	
4-8	82-370-426-01		Steel ball, 1.5ϕ		1	
4-9	82-371-338-01		Plate spring, Actuating chassis		1	
4-10	82-603-305-01		Roller, 2.5ϕ		2	
4-11	82-272-350-01		Plate spring, Head base holder		2	
4-12	82-384-202-01		Take-up reel platform ass'y		1	
4-13	82-374-277-01		Spring, Back tension		1	
4-14	82-384-206-01		Rewind reel platform ass'y		1	
4-15	82-463-219-01		Belt, Counter	TPR-900	1	
4-16	82-380-383-01		Actuating chassis ass'y	*	1	
4-17	82-380-443-01		Plate spring, Cassette holder	*	1	
4-18	82-457-342-01		Spacer		1	
4-19	82-357-487-01		Lead wire holder D		1	
4-20	82-380-442-01		Actuating lever B	*	1	
4-21	82-380-405-01		Pinch lever B ass'y		1	
4-22	82-374-278-01		Spring, Pinch lever		1	
4-23	82-380-402-01		Spring, Head adjuster	*	1	
4-24	82-380-403-01		Screw, Head adjuster	*	1	
4-25	82-374-272-01		Screw, Head cover	AD-1200	1	
4-26	82-380-404-01		Head cover B	*	1	
4-27	82-370-408-01		Brake		1	
4-28	82-370-376-01		Brake arm		1	
4-29	82-370-419-01		Spring, Brake arm		1	
4-30	82-380-379-01		Cushion, lamp	*	1	
4-31	82-272-270-01		FF idler		1	
4-32	82-272-291-01		Rewind lever ass'y		1	
4-33	82-370-407-01		Spring, Switch holder plate		1	
4-34	82-380-394-01		Spring, Cassette-up lever	*	1	
4-35	82-380-238-01		Eject lever ass'y	*	1	
4-36	82-380-286-01		Eject lever B	*	1	
4-37	82-380-296-01		Shaft, Eject lever	*	1	
4-38	82-370-264-01		Plate spring, Lock plate		1	
4-39	82-380-373-01		Lock plate B	*	1	
4-40	82-370-314-01		Spring, Pause lever		1	
4-41	82-370-291-01		Pause lever ass'y		1	
4-42	82-370-321-01		Bar, Relay		1	
4-43	82-380-444-01		Spring B, Actuating lever	*	1	
4-44	82-370-306-01		Shaft, Interlock lever		1	

EXPLODED VIEW – 5



Ref. No.	Part No.	Part No. Changed to	Description	Common Model	Q'ty
5-1	82-380-345-01		Main drive lever B ass'y	*	1
5-2	82-272-326-01		Spring, FR		1
5-3	82-370-417-01		Spring, Plunger		1
5-4	82-370-418-01		Return spring C		2
5-5	82-272-327-01		Shift spring		1
5-6	82-374-273-01		Spring, Stop lever	AD-1200	1
5-7	82-380-335-01		Stop lever C ass'y	*	1
5-8	82-370-383-01		Spring, Play idler		1
5-9	82-272-372-01		Play idler ass'y		1
5-10	82-370-391-01		Idler lever ass'y		1
5-11	82-380-399-01		Belt B, FR	*	1
5-12	82-374-285-01		Stop washer	AD-1200	1
5-13	82-380-395-01		Spring, Flywheel	*	1
5-14	82-272-368-01		Pulley, Flywheel		1
5-15	82-370-422-01		Felt, Flywheel		1
5-16	82-384-207-01		Flywheel ass'y		1
5-17	82-272-335-01		Screw for thrust		1
5-18	82-380-297-01		Bearing plate, Flywheel	*	1
5-19	82-370-414-01		Belt, Main		1
5-20	82-380-246-01		Relay holder ass'y	*	1
5-21	82-380-285-01		Pulley, Relay	*	1
5-22	82-380-393-01		Belt, Relay	*	1
5-23	82-380-409-01		FR lever ass'y	*	1
5-24	82-380-352-01		FR pulley ass'y	*	1
5-25	82-370-423-01		Collar, Motor		3
5-26	87-087-027-01		Rubber cushion		3
5-27	87-370-378-01		Motor holder		1
5-28	82-370-313-01		Spring, Rec. Lock lever		1
5-29	82-370-347-01		Rec. lock lever ass'y		1
5-30	82-374-249-01		Switch auxiliary plate B	AD-1200	1
5-31	82-374-279-01		Return spring D	AD-1200	1
5-32	82-374-248-01		Switch holder C	AD-1200	2
5-33	82-272-424-01		Spring, Rec. lever		1
5-34	82-380-413-01		Rec. lever ass'y	*	1
5-35	82-380-348-01		Holder, REW switch	*	1
5-36	82-379-617-01		Ring magnet	AD-1800	1
5-37	82-380-425-01		Joint lever ass'y	*	1
5-38	82-380-429-01		Spring, CrO_2 lever	*	1
5-39	82-380-431-01		Switch accessory plate C	*	1
5-40	82-380-433-01		Shaft, CrO_2 switch lever	*	1
5-41	82-380-434-01		CrO_2 switch lever	*	1
5-42	82-380-435-01		Spring, Auxiliary plate C	*	1
5-43	82-370-305-01		Spindle shaft		1
5-44	82-380-421-01		CrO_2 lever ass'y	*	1
5-45	82-380-425-01		Pin, Joint lever	*	1

Ref. No.	Part No.	Description	Q'ty
1-101	87-259-072-01	U + 2.6–4	1
1-102	82-253-094-01	U + 3–6	5

Ref. No.	Part No.	Description	Q'ty
1-103	87-233-094-01	Q + 3–6	6

Ref. No.	Part No.	Description	Q'ty
2-101	87-259-094-01	U + 3–6	3
2-102	87-253-092-01	U + 3–4	8
2-103	87-253-094-01	U + 3–6	4
2-104	87-257-033-01	U + 2–4	5
2-105	87-233-033-01	Q + 2–4	2
2-106	87-233-035-01	Q + 2–6	2
2-107	87-480-169-01	VS + 4–6	6
2-108	87-480-071-01	VS + 2.6–4	2
2-109	87-480-092-01	VS + 3–4	13
2-110	87-343-095-01	VT_2 + 3–5	12

Ref. No.	Part No.	Description	Q'ty
2-111	87-081-402-01	UT_2 + 3–8	2
2-113	87-259-071-01	U + 2.6-4 (black)	2
2-114	87-421-308-01	SW–4	1
2-115	87-421-306-01	SW–3	4
2-116	87-081-464-01	PW 1.8–5–0.5	1
2-117	87-433-906-01	WTIE–4	1
2-118	87-319-018-01	N–3	5
2-119	87-391-024-01	N–4	1
2-120	87-450-414-01	LB–4	2
2-121	87-450-416-01	LB–6	1
2-122	87-253-099-01	U + 3-15	2

Ref. No.	Part No.	Description	Q'ty
3-101	87-257-033-01	U + 2–4	2
3-102	87-239-033-01	Q + 2–4	3
3-103	87-233-094-01	Q + 3–6	4
3-104	87-450-092-01	VS + 3–4	2
3-105	87-480-071-01	VS + 2.6–4	5
3-106	87-480-094-01	VS + 3–6	4
3-107	87-343-037-01	VT_2 + 2–10	4
3-108	87-343-072-01	VT_2 + 2.6–5	4
3-109	87-323-034-01	QT_2 + 2–5	4
3-110	87-410-316-01	W3–10–0.8	2

Ref. No.	Part No.	Description	Q'ty
3-111	87-081-260-01	W4–10–0.4	2
3-112	87-410-318-01	W3–15–0.8	2
3-113	87-081-284-01	TW 2.1–5–0.3	1
3-114	87-081-464-01	PW 1.8–5–0.5	1
3-115	87-441-008-01	STE–2.5	4
3-116	87-441-009-01	STE–3	3
3-117	87-441-006-01	STE–2.3	1
3-118	87-442-003-01	STP–3	8
3-119	87-442-004-01	STP–4	3
3-120	87-374-032-01	SS2–3	2

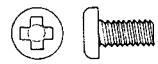
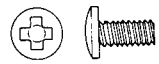
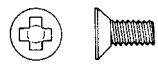
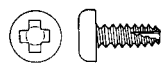
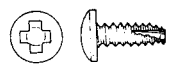
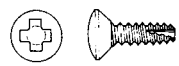
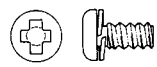
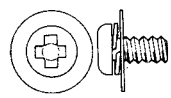
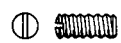
Tef. No.	Part No.	Description	Q'ty
4-101	87-263-039-01	V + 2–14	1
4-102	87-263-031-01	V + 2–2	2
4-103	87-263-070-01	V + 2.6–3	1
4-104	87-233-033-01	Q + 2–4	3
4-105	87-480-035-01	VS + 2–6	2
4-106	87-480-073-01	VS + 2.6–6	1
4-107	87-480-071-01	VS + 2.6–4	3
4-108	87-410-315-01	W3–8–0.5	1
4-109	87-480-033-01	VS + 2–4	6
4-110	87-480-071-01	VS + 2.6–4	3
4-111	87-480-036-01	VS + 2–8	2

Ref. No.	Part No.	Description	Q'ty
4-112	87-343-095-01	UT_2 + 3–5	2
4-113	82-215-207-01	TW 1.6–3.8–0.2	1
4-114	87-081-036-01	TW 2–5–0.2	2
4-115	82-283-351-01	PW 2–8–0.25	1
4-116	87-081-473-01	PW 1.3–3.2–0.25	2
4-117	87-081-464-01	PW 1.8–5–0.5	1
4-118	87-421-305-01	SW 2.6	1
4-119	87-441-006-01	STE-2.3	4
4-120	87-441-005-01	STE-2	4
4-121	87-441-003-01	STE-1.5	3

Ref. No.	Part No.	Description	Q'ty
5-101	87-263-031-01	V + 2–2	2
5-102	87-259-073-01	U + 2.6–6	2
5-103	87-253-094-01	U + 3–6	2
5-104	87-480-092-01	VS + 3–4	3
5-105	87-480-033-01	VS + 2–4	2
5-106	87-480-036-01	VS + 2–8	2
5-107	87-480-071-01	VS +2.6–4	8
5-108	87-490-074-01	VWS +2.6–8	3
5-109	87-410-313-01	W3–6–0.5	1
5-110	87-410-315-01	W3–8–0.5	1

Ref. No.	Part No.	Description	Q'ty
5-111	87-410-323-01	W4-8-0.5	2
5-112	87-081-209-01	TW2–9–0.2	1
5-113	87-081-036-01	TW2–5–0.2	3
5-114	87-081-319-01	TW2.3–8–0.3	5
5-115	87-081-284-01	TW2.1–5–0.3	1
5-116	87-081-464-01	PW1.8–5–0.5	3
5-117	87-441-010-01	STE-3.2	2
5-118	87-441-006-01	STE–2.3	3
5-119	87-441-005-01	STE–2	2
5-120	87-442-003-01	STP–3	1
5-121	87-441-008-01	STE-2.5	1
5-122	87-441-009-01	STE-3	2
5-123	87-263-035-01	V + 2–6	2

HARDWARE NOMENCLATURE

V:	Pan head screw	
U:	Binding head screw	
Q:	Flat countersunk head screw	
VT_2:	Pan head tapping screw	
UT_2:	Binding head tapping screw	
QT_2:	Flat countersunk head tapping screw	
VS:	Pan head screw with spring washer	
VWS:	Pan head screw with spring washer and washer	
SS:	Setscrew	

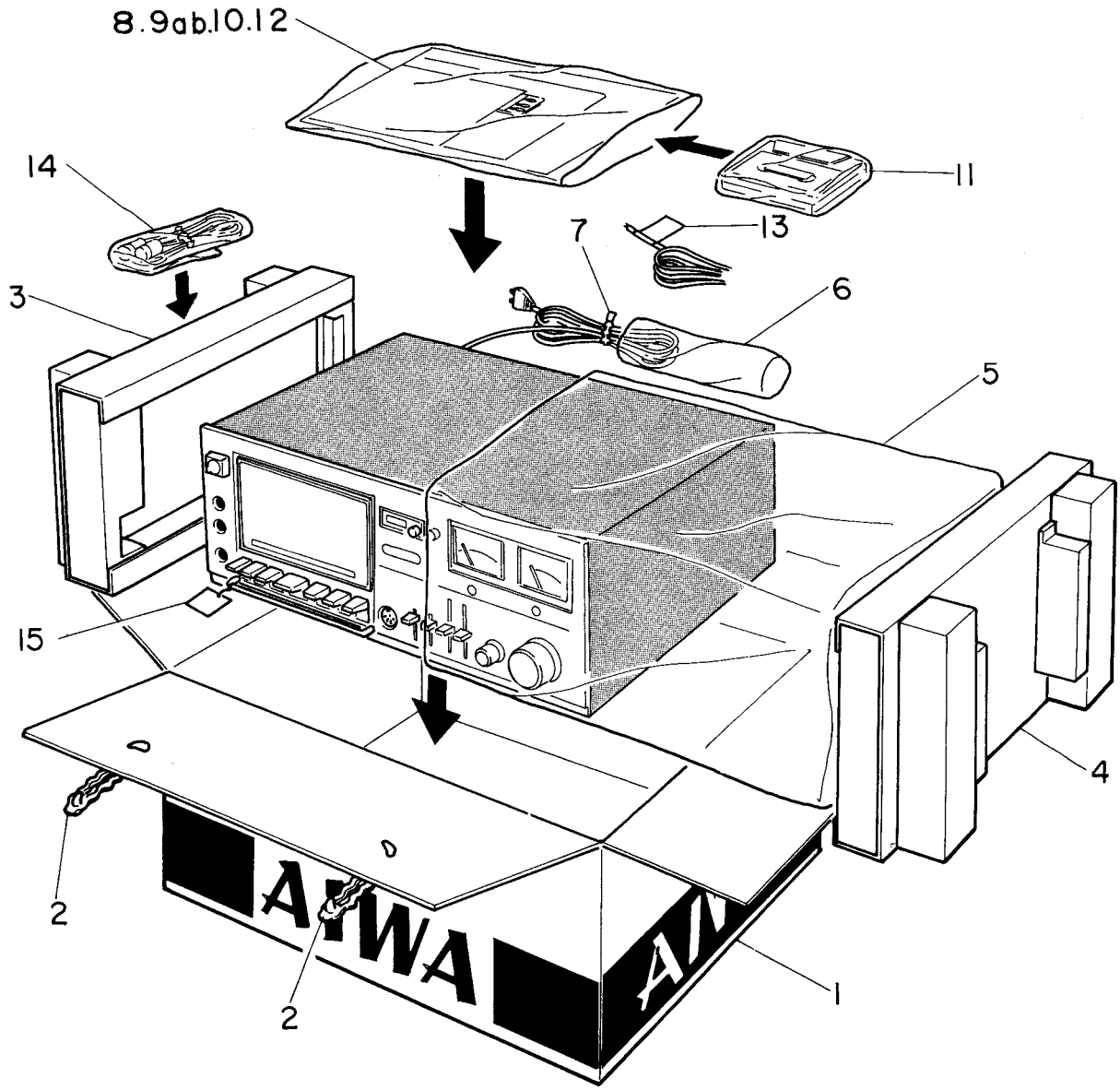
STE:	E ring (washer)	
STP:	Powerful stop ring	
W:	Washer	
FW:	Fibre washer	
TW:	Tefron washer	
PW:	Poly-slider washer	
SW:	Spring washer	
WTIE:	Crown washer	
LB:	Lug terminal plate	
N:	Nut	

Example:

V + 3 – 6

- 6 — Length in mm
- 3 — Diameter in mm
- + — Type of Slot
- V — Type of Head

ACCESSORIES/PACKAGE



ACCESSORIES/PACKAGE

Ref. No.	Part No.	Part No. Changed to	Description	Common Model	Q'ty	
1	82-380-858-01		Printed indiv. packing	*	1	
2	87-056-500-01		Curl stopper		2	
3	82-380-859-01		Cushion L, Printed indiv.	*	1	
4	82-380-860-01		Cushion R, Printed indiv.	*	1	
5	82-471-855-01		Poly-vinyl sack (for case)		1	
6	87-051-135-01		Poly-vinyl sack (for AC cord)		1	
7	87-058-009-01		Free-up belt		1	
8	87-051-171-01		Poly-vinyl sack (for instructions)		1	
9(a)	82-380-909-01		Instructions booklet (EE model only)	*	1	
9(b)	82-380-908-01		Instructions booklet (UK model only)	*	1	
10	87-056-009-01		Distributors list		1	
11	80-291-645-01		Tape cassette, DMC-130A		1	
12	87-058-019-01		Head cleaning pole ass'y		1	
13	87-056-008-01		Label, AC power cord (UK model only)		1	
14	86-925-002-01		Connection cord, CW - 115 K		1	
15	87-056-016-01		Tag, Main supply (UK model only)		1	

ELECTRICAL PARTS

Symbol No.	Part No.	Part No. Changed to	Description	Common Model	Q'ty
≪ MAIN CIRCUIT BOARD SECTION ≫					
PCB-A	82-380-605-21		Main Circuit board	*	1
< REC/PB SECTION >					
TR101,102	89-313-444-51		Transistor, 2SC-1344 (D, E)		2
TR103,104, 105, 106	89-307-326-01		Transistor 2SC-732 (BL)		4
TR107,108	89-402-274-01		Transistor, 2SD-227 (R)		2
TR109,110	89-308-285-01		Transistor, 2SC-828 (S)		2
TR111,112	87-027-111-01		Transistor, 2SC-828A(R)		2
TR114	89-305-366-71		Transistor, 2SC-536 (F, G)		1
D101,102,103, 104,105,106	88-051-060-01		Diode IN-60		6
D107	87-026-066-01		Diode M-8513A-0		1
L101,102	82-938-640-01		Trap coil 10mH		2
L103,104	82-371-644-01		Trap coil 22 mH		2
T101,102	82-370-610-01		Mathing trans		2
S1	82-371-620-01		Slide switch (REC/PB)		2
SFR101,102, 103,104,109, 110	87-021-432-01		Semi-fixed resistor, 50 kΩ-B		6
SFR105,106	87-021-445-01		Semi-fixed resistor, 10 kΩ-B		2
SFR107,108	87-021-442-01		Semi-fixed resistor, 30 kΩ-B		2
SFR111,112	87-021-444-01		Semi-fixed resistor, 3 kΩ-B		2
	87-032-653-01		Pin 3P		1
	87-032-658-01		Pin 8p		1
	87-032-661-01		Pin 11p		1
	87-033-092-01		PCB tab A		2
			< Resistors >		
R103,104	88-181-100-01		10Ω 1/4W ±5% ELR		2
R187	88-181-101-01		100Ω 1/4W ±5% ELR		1
R119,120,159, 160	88-181-151-01		150Ω 1/4W ±5% ELR		4
R191,192	88-181-561-01		560Ω 1/4W ±5% ELR		2
R107,108	88-181-102-01		1 kΩ 1/4W ±5% ELR		2
R151,152	88-181-122-01		1.2 kΩ 1/4W ±5% ELR		2
R117,118	88-181-152-01		1.5 kΩ 1/4W ±5% ELR		2
R173,174	88-181-182-01		1.8 kΩ 1/4W ±5% ELR		2
R169,170,133, 134	88-181-222-01		2.2 kΩ 1/4W ±5% ELR		4
R141,142	88-181-392-01		3.9 kΩ 1/4W ±5% ELR		2
R155,156	88-181-472-01		4.7 kΩ 1/4W ±5% ELR		2
R143,144,185 186	88-181-822-01		8.2 kΩ 1/4W ±5% ELR		4
R157,158	88-181-103-01		10 kΩ 1/4W ±5% ELR		2
R129,130,147, 148,188	88-181-123-01		12 kΩ 1/4W ±5% ELR		5
R127,128,139 140,193,194	88-181-153-01		15 kΩ 1/4W ±5% ELR		6
R113,114	88-181-223-01		22 kΩ 1/4W ±5% ELR		2
R121,122	88-181-273-01		27 kΩ 1/4W ±5% ELR		2
R149,150,153, 154	88-181-563-01		56 kΩ 1/4W ±5% ELR		4
R115,116	88-181-124-01		120 kΩ 1/4W ±5% ELR		2
R171,172	88-181-184-01		180 kΩ 1/4W ±5% ELR		2
R189	88-181-334-01		330 kΩ 1/4W ±5% ELR		1
R145,146	88-181-684-01		680 kΩ 1/4W ±5% ELR		2
R165,166	88-181-824-01		820 kΩ 1/4W ±5% ELR		2
R123,124	88-181-105-01		1 MΩ 1/4W ±5% ELR		2
R125,126	82-380-664-01		31.6 kΩ 1/4W ±5%		2
R109,110,111 112,115,196	88-183-224-01		220kΩ 1/4W ±5% LN		6
R137,138	88-183-334-01		330 kΩ 1/4W ±5% LN		2
			< Capacitors >		
C127,128,137, 138,139,140	88-337-590-01		0.47μF 50V Electrolytic		6
C150,160	88-336-300-01		3.3μF 25V Electrolytic		2
C165,166	88-336-500-01		4.7μF 25V Electrolytic		2

Symbol No.	Part No.	Part No. Changed to	Description	Common Model	Q'ty
C101,102	88-336-310-01		33μF 25V Electrolytic		2
C125,126	88-336-120-01		100μF 25V Electrolytic		2
C117,118,155 156,157,158 163,164,172	88-335-110-01		10μF 16V Electrolytic		9
C171	88-332-514-01		47μF 6.3V Electrolytic		1
C129,130	88-337-200-01		2.2μF 50V Electrolytic		2
C103,104	87-015-246-01		4.7μF 25V Electrolytic		2
C119,120	87-015-260-01		0.22μF 35V Tantalum		2
C115,116	87-015-200-01		10μF 16V Tantalum		2
C105,106	88-507-450-01		150pF Styrol		2
C131,132	88-507-480-01		220pF Styrol		2
C121,122	88-507-550-01		470pF Styrol		2
C123,124	88-707-720-01		0.0047μF Mylar		2
C135,136	88-707-960-01		0.12μF Mylar		2
C133,134	88-707-920-01		0.15μF Mylar		2
C109,110	82-380-661-01		0.0039μF PP		2
C153,154	87-968-410-01		100pF 500V Diptmika		2
C111,122	88-212-100-01		10pF Ceramic		2
C113,114	88-212-250-01		33pF Ceramic		2
C161,162,167, 168	88-212-410-01		100pF Ceramic		4
C107,108	88-212-560-01		560pF Ceramic		2
<BIAS OSC,AUTO-STOP SECTION>					
TR901	89-313-833-01		Transistor, 2SC-1383 (R)		1
TR902	89-313-647-01		Transistor, 2SC-1364 (7)		1
TR903	89-106-844-01		Transistor, 2SA-684 (R)		1
TR904	89-303-730-01		Transistor, 2SC-373		1
D901	87-026-060-01		Diode IB2Z1		1
D902	87-026-059-01		Diode IB2C1		1
D903	82-375-607-01		Zener diode WZ-270		1
D904,906	87-027-083-01		Diode IS-1885		2
D907,908,909	87-026-066-01		Diode M-8513A-0		3
L901	82-380-606-01		Bias OSC coil		1
L902	82-371-648-01		Micro inductor 6.8 mH		1
SFR901,902,	87-021-446-01		Semi-fixed resistor, 100 kΩ-B		2
			<Resistors>		
R912	88-181-330-01		33Ω 1/4W ±5% ELR		1
R902	88-181-681-01		680Ω 1/4W ±5% ELR		1
R913,915	88-181-102-01		1 kΩ 1/4W ±5% ELR		2
R914,928	88-181-122-01		1.2 kΩ 1/4W ±5% ELR		2
R919	88-181-222-01		2.2 kΩ 1/4W ±5% ELR		1
R903	88-181-332-01		3.3 kΩ 1/4W ±5% ELR		1
R918	88-181-562-01		5.6 kΩ 1/4W ±5% ELR		1
R925	88-181-103-01		10 kΩ 1/4W ±5% ELR		1
R911	88-181-473-01		47 kΩ 1/4W ±5% ELR		1
R927	88-181-124-01		120 kΩ 1/4W ±5% ELR		1
R904	87-029-015-01		10Ω 1/4W Fuse resistor		1
R901	87-029-014-01		22 Ω 1/2W Fuse resistor		1
			<Capacitors>		
C906	88-337-100-01		1μF 50V Electrolytic		1
C903	88-337-134-01		1000μF 50V Electrolytic		1
C902	88-344-220-01		220μF 35V Electrolytic		1
C901	88-337-320-01		330μF 50V Electrolytic		1
C913	88-336-510-01		47μF 25V Electrolytic		1
C904	88-344-520-01		470μF 35V Electrolytic		1
C905	88-336-134-01		1000μF 25V Electrolytic		1
C909	88-336-310-01		33μF 25V Electrolytic		1
C912	88-332-220-01		220μF 6.3V Electrolytic		1
C915,916	87-968-480-01		220pF 500V Dipt mika		2
C917	88-658-660-01		2200pF 500V Styrol		1
C907	88-717-810-01		0.01μF Mylar		1
908	88-717-720-01		0.0047μF Mylar		1
C910	88-214-810-01		0.01μF Ceramic		1

Symbol No.	Part No.	Part No. Changed to	Description	Common Model	Q'ty
<DOLBY-NR SECTION>					
TR305,306,307 308,313,314	89-308-285-01		Transistor, 2SC-828 (S)		6
TR301,302,303, 304,309,310	89-308-284-01		Transistor, 2SC-828 (R)		6
TR311,312	89-106-285-01		Transistor, 2SA-628 (F)		2
FET301,302	82-371-625-01		FET 2SK-30 (D)		2
D305,306,307, 308	88-051-060-01		Diode IN-60		4
D301,302,303, 304,309,310	87-026-066-01		Diode M-8513 (A-O)		6
D311	82-371-647-01		Zener diode, RD-7.5 (E)		1
L301,302	82-372-625-01		Coil 36 mH		2
L303,304	82-371-622-01		Coil 23 mH		2
SFR301,302	87-021-444-01		Semi-fixed resistor, 3 kΩ-B		2
SFR303,304	87-021-443-01		Semi-fixed resistor, 1 kΩ-B		2
			<Resistors>		
R359,360	88-181-330-01		33Ω 1/4W ±5% ELR		2
R355,356	88-181-470-01		47Ω 1/4W ±5% ELR		2
R361,362	88-181-102-01		1 kΩ 1/4W ±5% ELR		2
R371,373,374	88-181-122-01		1.2 kΩ 1/4W ±5% ELR		3
R305,306,335	88-181-182-01		1.8 kΩ 1/4W ±5% ELR		3
R325,326,357 358	88-181-272-01		2.7 kΩ 1/4W ±5% ELR		4
R309,310	88-181-332-01		3.3kΩ 1/4W ±5% ELR		2
R301,302,333 334	88-181-682-01		6.8 kΩ 1/4W ±5% ELR		4
R341,342,345 346,349,350	88-181-822-01		8.2 kΩ 1/4W ±5% ELR		6
R343,344	88-181-103-01		10 kΩ 1/4W ±5% ELR		2
R363,364	88-181-153-01		15 kΩ 1/4W ±5% ELR		2
R321,322,375, 376	88-181-223-01		22 kΩ 1/4W ±5% ELR		4
R307,308,317, 318	88-181-273-01		27 kΩ 1/4W ±5% ELR		4
R311,312,327 328,347,348	88-181-333-01		33 kΩ 1/4W ±5% ELR		6
R331,332	88-181-393-01		39 kΩ 1/4W ±5% ELR		2
R351,352	88-181-473-01		47 kΩ 1/4W ±5% ELR		2
R315,316	88-181-913-01		91 kΩ 1/4W ±5% ELR		4
R303,304,353, 354	88-181-124-01		120 kΩ 1/4W ±5% ELR		4
R313,314	88-181-154-01		150 kΩ 1/4W ±5% ELR		2
R369,370	88-181-224-01		220 kΩ 1/4W ±5% ELR		2
R319,320	88-181-234-01		230 kΩ 1/4W ±5% ELR		2
R365,366,367 368	88-181-274-01		270 kΩ 1/4W ±5% ELR		4
R323,324	88-181-474-01		470 kΩ 1/4W ±5% ELR		2
R337,338	88-181-684-01		680 kΩ 1/4W ±5% ELR		2
R329,330	88-371-645-01		3.3 kΩ 1/4W ±1%		2
			<Capacitors>		
C307,308,309, 310	88-336-500-01		4.7μF 25V Electrolytic		4
C311,312,313, 314,321,322, 327,328,333, 334	88-335-110-01		10μF 16V Electrolytic		10
C339	88-335-120-01		100μF 16V Electrolytic		1
C325,326	88-332-514-01		47μF 6.3V Electrolytic		2
C337,338	87-015-261-01		0.33μF 35V Tantalum		2
C303,304	88-507-690-01		3000pF Styrol		2
C323,324,329, 330,335,336	88-717-910-01		0.1μF Mylar		6
C331,332	88-707-910-01		0.1μF Mylar		2
C305,306	88-707-660-01		0.0022μF Mylar		2
C301,302	88-707-710-01		0.0039μF Mylar		2
C319,320	82-375-609-01		0.03μF PP		2
C315,316	82-375-608-01		3000pF PP		2
C317,318	82-371-643-01		4700pF PP		2

Symbol No.	Part No.	Part No. Changed to	Description	Common Model	Q'ty
≪SWITCH CIRCUIT BOARD SECTION≫					
PCB-B	82-380-669-01		Switch circuit board	*	1
TR205,206	89-305-365-61		Transistor, 2SC-536 (EF)		2
L105,106	82-380-663-01		Coil 6.5 mH	*	2
L107,108	82-372-670-01		Coil 3.3 mH		2
L109,110	82-379-606-01		Coil 4.7 mH		2
J4	82-380-616-01		DIN socket (DIN-1)	*	1
VR101,102	82-380-608-01		Volume 100 kΩ-A (RECORD LEVEL)	*	1
VR103,104	82-380-607-01		Volume 10 kΩ-A (OUTPUT LEVEL)	*	1
S2,3	87-031-340-01		Lever switch (TAPE SELECTOR EQ, BIAS)		2
S4	87-031-339-01		Lever switch (DOLBY-NR)		1
S12	87-031-346-01		Lever switch (INPUT SELECTOR)		1
S17	82-380-610-01		Slide switch (DIN)	*	1
	87-032-653-01		Pin, 3P		2
	87-032-654-01		Pin 4P		2
	87-032-655-01		Pin, 5P		3
	87-032-656-01		Pin, 6P		3
	87-032-659-01		Pin, 9P		1
			<Resistors>		
R161,162	88-181-220-01		22Ω 1/4W ±5% ELR		2
R177,178	88-181-330-01		33Ω 1/4W ±5% ELR		2
R175,176	88-181-470-01		47Ω 1/4W ±5% ELR		2
R131,132	88-181-680-01		68Ω 1/4W ±5% ELR		2
R163,164	88-181-182-01		1.8kΩ 1/4W ±5% ELR		
R170,180	88-181-332-01		3.3kΩ 1/4W ±5% ELR		2
R167,168	88-181-822-01		8.2kΩ 1/4W ±5% ELR		2
R211,212	88-181-473-01		47kΩ 1/4W ±5% ELR		2
R181,182,209, 210	88-181-105-01		1MΩ 1/4W ±5% ELR		4
R929	88-131-471-01		470Ω 1/4W ±5%		1
R135,136	88-131-563-01		56kΩ 1/4W ±5%		2
			<Capacitors>		
C205,206	88-337-500-01		4.7μF 50V Electrolytic		2
C143,144	88-707-630-01		0.0015μF Mylar		2
C141,142,149, 150	88-707-820-01		0.015μF Mylar		4
C145,146	88-707-830-01		0.022μF Mylar		2
C151,152	88-707-850-01		0.047μF Mylar		2
C147,148	88-707-980-01		0.056μF Mylar		2
≪PEAK INDICATOR CIRCUIT BOARD SECTION≫					
PCB-C	82-380-602-01		Peak indicator circuit board	*	1
TR201,202, 203,204	89-313-647-01		Transistor, 2SC-1364 (7)		4
D203	87-027-083-01		Diode, IS-1885		1
D205,206	88-051-060-01		Diode, IN-60		2
SFR201	87-021-434-01		Semi-fixed resistor, 20kΩ-B		1
	87-032-686-01		Pin 6P		1
			<Resistors>		
R207,208	88-181-101-01		100Ω 1/4W ±5% ELR		2
R203	88-181-562-01		5.6kΩ 1/4W ±5% ELR		1
R202,205	88-181-391-01		390Ω 1/4W ±5% ELR		2
			<Capacitors>		
C201,202	88-335-110-01		10μF 16V Electrolytic		2
C203	88-335-220-01		220μF 16V Electrolytic		1
≪BIAS CIRCUIT BOARD SECTION≫					
PCB-D	82-380-630-01		Bias circuit board	*	
S14	82-370-609-01		Slide switch (REC/PB LAMP)		1
			<Resistors>		
R910	88-181-221-01		220Ω 1/4W ±5% ELR		1
R909	88-181-271-01		270Ω 1/4W ±5% ELR		1
R907,908	88-181-331-01		330Ω 1/4W ±5% ELR		2
R906	88-181-391-01		390Ω 1/4W ±5% ELR		1
R905	88-181-471-01		470Ω 1/4W ±5% ELR		1

Symbol No.	Part No.	Part No. Changed to	Description	Common Model	Q'ty
≪CrO_2 AUTO CIRCUIT BOARD SECTION≫					
PCB-E	82-380-675-01		CrO_2 AUTO circuit board	*	1
S11	87-031-239-01		Slide switch (CrO_2 AUTO)		1
≪AUTO-STOP DETECTION CIRCUIT BOARD SECTION≫					
PCB-F	82-379-614-01		Auto-stop detection circuit board		1
TR905	87-027-111-01		Transistor, 2SC-828A(R)		1
IC901	82-379-618-01		Hall IC DN-831		1
			<Resistors>		
R921	88-181-122-01		1.2kΩ 1/4W ±5% ELR		1
R922	88-181-152-01		1.5kΩ 1/4W ±5% ELR		1
R920	88-141-332-01		3.3kΩ 1/2W ±5%		1
R923	88-140-272-01		2.7kΩ 1/4W ±5%		1
≪STOP MUTING CIRCUIT BOARD SECTION≫					
PCB-G	82-380-611-01		Stop muting circuit board	*	1
S5	87-031-239-01		Slide switch (STOP MUTING)		1
≪MIC JACK CIRCUIT BOARD SECTION≫					
PCB-H	82-380-636-01		Mic jack circuit board	*	1
J5,6	87-032-672-01		Mic jack 6.3φ (MIC-L, R)		2
			<Resistors>		
R101,102	88-181-562-01		5.6kΩ 1/4W ±5% ELR		2
R105,106	88-181-103-01		10kΩ 1/4W ±5% ELR		2
≪LED CIRCUIT BOARD SECTION≫					
PCB-1	82-380-662-01		LED circuit board	*	1
D201	87-026-086-01		Light emitting diode, SLP-314 (YEL)		1
D202	87-026-083-01		Light emitting diode, SLP-114 (RED)		1
≪MEMORY CIRCUIT BOARD SECTION≫					
PCB-J	82-380-628-11		Memory circuit board	*	1
S10	87-031-360-01		Push switch (MEMORY)		1
			<Resistors>		
R917	88-181-103-01		10kΩ 1/4W ±5% ELR		1
R916	88-181-104-01		100kΩ 1/4W ±5% ELR		1
			<Capacitor>		
C911	88-214-810-01		0.01μF Ceramic		1
≪LINE OUT CIRCUIT BOARD SECITON≫					
PCB-K	82-380-660-11		Line out circuit board	*	1
			<Resistor>		
R183,184	88-181-332-01		3.3kΩ 1/4W ±5% ELR		2
≪CASSETTE LAMP CIRCUIT BOARD SECTION≫					
PCB-L	82-380-657-01		Cassette lamp circuit board	*	1
PL5	82-380-626-01		Pilot lamp (CASSETTE LAMP)	*	1
≪MISCELLANEOUS≫					
M1	82-380-620-11		Motor ass'y (MAIN MOTOR)	*	1
D910	87-026-088-01		Light emitting diode, GD4-203 (DOLBY-NR)		1
D905	87-027-083-01		Diode, IS-1885		1
D911	87-026-090-01		Light emitting diode, GD4-501 (REC)		1
T901	82-380-615-01		Power transformer (EE model only)	*	1
T901	82-380-679-01		Power transformer (UK model only)	*	1
PL3	82-380-659-01		Pilot lamp, 8V 100mA (TAPE RUN)	*	1
PL4	82-380-603-01		Pilot lamp, 8V 50mA (ROOM LAMP)	*	1
SOL901	82-374-634-11		Solenoid (AUTO STOP)		1
RPH	82-372-676-01		REC/PB head		1
EH	87-046-088-11		Erase head		1
LM101,102	82-380-667-01		Level meter	*	2
M2	82-380-604-01		Miniature motor (CASSETTE CARRIER MOTOR)	*	1
S6	82-370-604-11		Leaf switch (CUE/REV MUTING)		1
S7, 13	82-380-621-01		Sub-miniature switch (MAIN MOTOR, CASSETTE CARRIER MOTOR)	*	2

Symbol No.	Part No.	Part No. Changed to	Description	Common Model	Q'ty
S8, 15	87-031-261-01		Micro switch (AUTO STOP, MEMORY REW)		2
S9	82-370-607-11		Leaf switch (PAUSE)		1
S18	82-375-623-01		Slide switch (DIN OUTPUT LEVEL)		1
S19	87-031-342-01		Push switch (POWER)		1
S20	87-031-343-01		Slide switch (VOLTAGE SELECTOR)		1
J1,2,3,7,8	82-380-618-01		Jack plate Ass'y (LINE IN, DIN2, LINE OUT)	*	1
J9	87-032-673-01		Headphone jack, 6.3ϕ (PHONES)		1
F1	87-035-067-01		Fuse, 100mA "T" (EE model only)		1
F1	87-035-131-01		Fuse, 100mA "T" (UK model only)		1
	87-657-766-11		Fuse label, 100mA "T"		1
F2	87-035-080-01		Fuse, 160mA "T" (EE model only)		1
F2	87-035-132-01		Fuse, 160mA "T" (UK model only)		1
	87-057-800-01		Fuse label, 160mA "T"		1
F3	87-035-145-01		Fuse, 250mA "T"		1
	87-057-822-01		Fuse label, 250mA "T"		1
F4	87-035-063-01		Fuse, 630mA "T" (EE model only)		1
F4	87-035-135-01		Fuse, 630mA "T" (UK model only)		1
	87-057-798-01		Fuse label, 630mA T		1
	82-379-678-01		Fuse holder, 4P		1
	87-033-013-01		Lug terminal plate, 1L 4P		1
	87-034-835-01		AC power cord (EE model only)		1
	87-034-847-01		AC power cord (UK model only)		1
	82-380-641-01		Connector ass'y 3P	*	1
	82-380-642-01		Connector ass'y 3P	*	1
	82-380-643-01		Connector ass'y 3P	*	1
	82-380-672-01		Connector ass'y 4P	*	1
	82-380-678-01		Connector ass'y 4P	*	1
	82-380-680-01		Connector ass'y 5P	*	1
	82-380-644-01		Connector ass'y 5P	*	1
	82-380-645-01		Connector ass'y 5P	*	1
	82-380-673-01		Connector ass'y 6P	*	1
	82-380-674-01		Connector ass'y 6P	*	1
	82-380-647-01		Connector ass'y 6P	*	1
	82-380-649-11		Connector ass'y 6P	*	1
	82-380-650-21		Connector ass'y 8P	*	1
	82-380-656-01		Connector ass'y 9P	*	1
	82-380-666-01		Connector ass'y 11P	*	1
			<Capacitors>		
C920	88-214-810-01		0.01μF Ceramic		1
C918,919	88-205-810-01		0.01μF Ceramic		2